Appendix 4
Public Involvement/ Response to Comments

Appendix 3 and Appendix 4 of the Supplemental Draft EIS are incorporated by reference, in accordance with 40 CFR 1500.4(j) and (o), 1502.21 and 1506.4. The incorporated material can be found on pages 3-1 through 4-138 in Volume 2 of the Supplemental Draft EIS. Appendix 3 and Appendix 4 are briefly summarized below, followed by the comments and responses on the Supplemental Draft EIS.

Summary of Appendix 3 and Appendix 4

The Interior Columbia Basin Ecosystem Management Project (the project, ICBEMP) was chartered by the Director of the Bureau of Land Management (BLM) and the Chief of the Forest Service in January 1994. The project charter directed that the development of an ecosystem management strategy be a multi-agency effort involving the public in an open process. In its commitment to an open process, the project involved people early and often, shared information as it became available, and used both traditional and non-traditional methods to reach a wide spectrum of people interested in the management of public lands.

Collaboration, interaction, and consultation occur with other federal, state, county, and tribal government officials, and with special interest groups, interested individuals, and the general public. Hundreds of public meetings were held throughout the project, and there were innumerable briefings, conference calls, collaborative intergovernmental working meetings, and on-on-one information exchanges.

In June 1997, the Eastside and Upper Columbia River Basin Draft Environmental Impact Statements (EISs) for the ICBEMP were released for public review, initiating a formal 120-day comment period. The comment period was extended several times and lasted a total of 335 days, ending in May 1998. Approximately 82,895 letters and internet responses were received on the Draft EISs. The comments were recorded and consolidated by the Content Analysis Enterprise Team, an independent team made up of federal employees.

In March 2000, the ICBEMP Supplemental Draft EIS was released for public review, initiating a formal 90-day comment period. Appendix 3 of the Supplemen-

tal Draft EIS summarizes the public involvement activities from the inception of the project through the public comment period on the Draft EISs, ending in May 1998. These included: scoping, issue identification, Draft EIS alternative development, public briefings and presentations (1994-1997), and sources of public information. Appendix 3 also contains a summary of public involvement efforts from May 1998 to the release of the Supplemental Draft EIS, and it concludes by outlining opportunities for future public involvement in project development and implementation.

Appendix 4 of the Supplemental Draft EIS presents the consolidated public comments on the Draft EISs and responses developed by project staff. They are divided into three major topic areas: comments related to the proposed action and purpose and need statement, comments related to biophysical components of the ecosystem, and comments related to social-economic-tribal components of the ecosystem.

Appendix 4 of this Final EIS updates Appendix 3 and Appendix 4 by summarizing public involvement efforts from March to November 2000 and by presenting the consolidated public comments on the Supplemental Draft EIS and the responses developed by project staff.

Public Involvement Efforts

Public Briefings and Presentations (March to November 2000

Project Briefings and Consultations

Meetings, briefings, and consultations with individuals, agencies, and organizations were held throughout the development of the Final EIS. Table 1, at the end of this appedix, lists significant contacts made since the Supplemental Draft EIS was released in March 2000. The list is not exhaustive. Numerous internal briefings, collaborative intergovernmental working meetings, and on-on-one consultations with members of the public have occurred.

Special Presentations

Project staff gave approximately 60 special presentations in response to requests from other federal agencies, state, county, and tribal governments, forest and rangeland user groups, conservation and environmental organizations, professional societies, and civic organizations. More than 100 people attended the various presentations.

Tribal Discussions

Since March 2000, individual contacts with the 22 tribal governments and their representatives were made. These contacts were designed to provide a transition to the step-down process. Local BLM and Forest Service line managers were assigned as lead contacts to engage tribal dialogue concerning the Supplemental Draft EIS. The goal of the contact was to make sure that the tribes were informed about the changes being made to complete a Final EIS and the timelines. In addition, informal contact was made with key tribal staff. Project information was mailed, then followed by multiple telephone contacts to assure documents were received and to determine the desire for meetings. The Tribal Working Group has not met during the time after release of the Supplemental Draft EIS.

At the same time the project was working towards completion, the Federal Caucus was also formally and informally consulting with the tribes on the "All-H" strategies. With a focus on the interagency All-H strategies addressing hydropower systems management in the Columbia River basin, tribal interaction with federal agencies in the region were largely focused on review drafts of that process. Several meetings were conducted directly concerning ICBEMP and the Supplemental Draft EIS, however. These primarily involved the Warm Springs (October), Umatilla (November), Ft. McDermitt Paiute (August), and Ft. Bidwell Paiute (July) tribal governments. In several cases, such as the Klamath Tribes, Yakama, and the Colville tribes, written comments were submitted in place of a meeting according to the desires of the tribes. Although no specific meeting was requested concerning ICBEMP specifically, the Supplemental Draft EIS was the subject of more general meetings

with the tribes or meetings addressing related issues such as development of local land use plans and other activities, such as with the Duck Valley Shoshone-Paiute. Most tribal interaction came in the context of All-H tribal meetings, including the upper Columbia River Basin tribes involving the Coeur d'Alene, Spokane, Kootenai (of Idaho), and other tribes.

Sources of Project Information During Final EIS Development (March to November 2000)

Mailing List, Newsletters, and Mailers

The project mailing consists of nearly 14,000 names. People whose names were on the list received notices of upcoming meetings, newsletters, draft documents, and EIS mailers. Names of meeting participants and others who contacted the project offices were added to the list.

The project communications staff published a periodic newsletter (*Leading Edge*), electronically to Forest Service and BLM employees and hard copy to those on the mailing list. The newsletter kept people updated on the progress and contents of Science Team and EIS Team efforts and documents. From March through November 2000, three issues of the project newsletter were published and distributed.

Project Information Binder

The project information binder initiated following the Draft EISs continued to be updated and available at local Forest Service and BLM offices and public libraries throughout the project area. The binders included general background on the project, meeting notes, draft documents, and newsletters.

Electronic Library / Internet / Toll-free Telephone Number

An electronic library instituted in 1994 continued to be updated and accessible on the Internet through the ICBEMP website (http://www.icbemp.gov). The website contains full versions of the Eastside and UCRB Draft EISs, the Supplemental Draft EIS, project newsletters, news releases, a powerpoint presetation on the Supplemental Draft EIS, and other project information such as questions and answers (Q&As) and the project history.

Responses to Public Comments

Introduction

In March 2000, the ICBEMP Supplemental Draft EIS was released for public review, initiating a formal 90-day comment period on the EIS. In April 2000, the Report to the Congress on the Interior Columbia Basin Ecosystem Management Project (Report to Congress) was provided to the U.S. Congress and released for public review, initiating a formal 120-day comment period on the report.

A total of 528 responses were received on both the Supplemental Draft EIS and the Report to Congress, with only a few specifically limiting their remarks to the Report to Congress. Comments were analyzed and subsequently consolidated by a content analysis team convened by the project, and responses were developed by project staff. They are organized in this appendix into three major topic areas: comments related to the proposed action and purpose and need statement, comments related to biophysical components of the ecosystem, and comments related to social-economic-tribal components of the ecosystem.

The comments were read and coded based on content and intent, and then re-read and coded by a second analyst to reduce subjectivity and promote consistency in coding. Each comment was given a unique tracking number and entered into a database. The public comments were then categorized and summarized and are reported in the *Final analysis of Public Comment for the ICBEMP Supplemental Draft EIS*.

Of the total responses received on either the Supplemental Draft EIS or the Report to Congress, approximately 370 were from inside the project area. Nearly 400 were submitted from individuals or families, with the remaining comments coming from a variety of organizations including: interest groups; businesses; federal, state, county, and local government agencies;

The Content Analysis Process

Content analysis is a process that objectively and systematically identifies, summarizes, and describes written or oral public comments in a format that staff and decision makers can use to make recommendations and decisions. Content analysis helps the EIS Team clarify, adjust, or use technical information, as required by National Environmental Policy Act (NEPA) regulations.

The purpose of content analysis is to display and describe what the public said as completely and accurately as possible. Both the number and quality of public input serve to identify public values, preferences, and possible acceptable tradeoffs. The approximate measure of public opinion and values afforded by content analysis can then be weighed against other decision-making factors. Knowledge of how various people and groups feel about issues and proposals contributes to decisions that are based on better understanding of the balance of values expressed in the comments.

Several types of content analysis provide quantitative and qualitative ways to analyze and evaluate comments. The type of content analysis used by this team captures opinions and supportive reasons for the comments together, summarized by the team and supported by sample quotations in the respondents' own words.

elected officials; tribal governments; and professional societies.

Approximately 212 responses were from organized response campaigns, including: petitions, postcards, resolutions, comment forms, and form letters. More than 90 responses came from emails or the web page.

Every comment was considered in this content analysis process, whether it came repeatedly from many people saying the same thing or from a single person bringing up a technical or personal point. Emphasis was placed on the content of the comment rather than the number of times a comment was received. All comments can be tracked to the original letter and can be sorted and reported in a variety of ways. The numbers can be derived from the database if desired.

The results of the content analysis were critical to the development of the Final EIS. Following are the consolidated comments and the responses developed by the project staff. This appendix contains for the most part only those substantive comments that did *not* result in a direct change to the EIS analysis, alternatives, or chapters. Comments that contributed to such changes are documented in Chapters 1 through 5 of the Final EIS.

Proposed Action, Purpose and Need

Purpose and Need

Comment: *Why recommend a change, when all alternatives provide for the same conditions as to water quality, aquatic species, and terrestrial vegetation in the long term? The purpose and need of the ICBEMP effort is clearly being met by existing planning and management activities, and these programs should not be disrupted.*

Response: Some of the projected differences in effects among alternatives are as follows (page references are all to Chapter 4 of the Supplemental Draft EIS):

- Alternative S2 would better maintain and restore soil productivity, hydrologic functions, and watershed processes than Alternative S3, followed by Alternative S1 (page 11).
- Effects from uncharacteristic wildfire are expected to increase slightly under Alternative S1 and decrease in Alternatives S2 and S3 (page 39).
- Alternative S2 would result in better conditions for terrestrial vertebrates then Alternative S3, followed by Alternative S1 (page 76).
- In the long term (100 years) all three alternatives are predicted to improve water quality conditions, and Alternative S2 is predicted to have the most positive influence on water quality (page 113).
- The largest increase in aquatic habitat capacity would come from AlternativeS2 (page 113).
- Uncharacteristic wildfire effects on vegetation and soils would steadily decline under all alternatives on rangelands; the most substantive im-

provement is projected under Alternatives S2 and S3, and least improvement in Alternative S1 (page 187).

Comment: *The Plan fails to adequately consider the social and economic needs of people.*

Social and economic needs are considered as negative effects instead of parts of ecosystems to be managed.

Response: The purpose and need statement in Chapter 1 of the Supplemental Draft identifies support of social and economic needs of people, cultures, and communities as a primary purpose of ICBEMP. Social and economic needs are recognized as components of ecosystem management that must be provided for in a predictable and sustainable manner. While providing for protection and restoration of ecosystems and habitats for threatened and endangered species is a major focus of the plan, protection and restoration measures have been designed to minimize impacts on major human uses such as timber harvest, grazing, and recreation.

In the Supplemental Draft EIS, forestland restoration actions that involve timber harvesting will actually increase the amount of wood fiber available for commercial use by up to 20 percent in the first decade (see Chapter 4, page 150, Table 4-35). Rangeland restoration actions are specifically aimed at improving rangeland ecosystem structure and processes, rather than taking the path of requiring a specific reduction in the amount of grazing authorized on BLM- and Forest Service-administered lands (Chapter 4, page 147). Forest and rangeland restoration projects, including prescribed fire and fuels reduction, are expected to increase related employment by almost 2,700 jobs annually basin-wide under the proposed action.

In addition, management objectives require the agencies to give highest priority to conducting restoration activities near rural and tribal isolated and economically specialized communities that often have lower socio-economic resilience and a greater need for assistance during periods of economic transition (Objectives B-O56 and R-O34, Chapter 3).

Comment: *When proposing to "…support economic and social needs of people, cultures and communities…", recognize that different types of economies may conflict (e.g., fishing vs. timber/grazing).*

Response: The core of the ICBEMP process and proposed action is to sustain and improve environmental and ecological conditions on Forest Service- and BLM-administered lands in the basin. Healthy ecosystems should provide more opportunities that are sustainable over the long run for all types of economies. The objectives and standardsin the Final EIS are written to recognize the need for flexibility in identifying and considering local conditions and needs (through the step-down process) and to encourage and facilitate collaboration among government and private entities to find common ground and develop workable solutions.

Comment: *The purpose statement serves as the critical gatekeeper role in that it sets forth the evaluating criteria to judge between alternatives. Unfortunately, in this case, the stated purposes offer only limited ability to choose between alternatives. One of the stated purposes of the proposed action was to "identify where current policy regulation or organization structure may act as challenges to implementing the strategy or achieving desired conditions." Aside from the inherent error in classifying this as a purpose, we are unable to find where any of the alternatives address this issue. We suggest that juxtaposition of planning for this scale and identification of policy regulations, statutes or structural impediments to this scale of planning be analyzed. These issues should be addressed prior to the Record of Decision (ROD).*

Other "purposes" that are not actually "purposes" include: amending plans, providing consistent direction, and emphasizing adaptive management. None of these alleged purposes are useful in judging between alternatives.

Response: There are multiple components to the purpose statement in Chapter 1 of the Supplemental Draft EIS other than the identification of administrative and organizational barriers that may need changing. As stated on page 10, the purpose of the proposed action is to take a coordinated broad-scale approach and to select a management strategy that best achieves a combination (emphasis added) of the identified nine topics. As stated on page 17 of Chapter 1, most of the decisions in the ROD will focus on regional and subregional issues that can be addressed by the amendment of land use plans. The first part of the ROD will address other commitments (other than land use plan direction commitments) that the regional executives may need to make to implement the direction, such as establishing MOUs

and agreements on administrative aspects such as budget development procedures.

Ecosystem Management

General

Comment: *The document is biased in favor of resource extraction and ignores public support for an end to commercial logging and other extractive actions on national forests.*

Response: The proposed decision in the Final EIS responds to the purpose and need and the five goal statements established early in the planning process. A complete prohibition of commercial logging and other extractive actions is outside the scope of this project, as well as the various laws and regulations applicable to management of Forest Service-and BLM-administered lands. Within these parameters, the Final EIS focuses on restoring and maintaining ecosystems across the project area and providing for the social and economic needs of people, while reducing short- and long-term risks to natural resources from human and natural disturbances. In addition to promoting the broad-scale restoration and maintenance of ecosystems, conservative direction is also provided to further promote the protection of specific subwatersheds containing important fish populations and specific watersheds containing important terrestrial source habitats and to expand these areas through restoration actions.

Comment: *ICBEMP ought to leave the door open for the creation of large preserves, even to the point of a "hands-off" management approach to these already intact, undisturbed areas.*

Response: In addition to the three alternatives analyzed in the Supplemental Draft EIS, all of the alternatives in the Draft EISs, including Alternative 7 (which establishes large preserves throughout the basin, called "reserves") are still available for the project's Executive Steering Committee (ESC) to select from in developing the Record of Decision. Prior to singing the record of Decision, the ESC will consider the comparative effects of the alternatives, including their effectiveness at achieving the overall purpose and need and goals for the action, as supported by the EIS analysis, the Scientific Assessment, and other science findings relative to the alternatives. The Scientific Assessment analyzed the potential effects of passive management. The Science Team found that in disturbance ecosystems, not taking action can cause negative effects on fish, wildlife, and other important values from uncharacteristic fire, noxious weeds, or diseases in particular situations. To implement passive management, except for fire exclusion, could push the ecosystems into further departure, while escalating fire risk due to increased fuel loads, development of fuel ladders, development of over-dense forests and rangelands, and stressed forests leading to insect and disease problems, mortality, and even higher fire risk.

Comment: *There is an overemphasis on social-economics and an underemphasis on returning the ecosystem to health.*

Response: The proposed decision responds to the project's purpose and need, as well as all of the goals which were brought forward unchanged from the Draft EISs. The Final EIS focuses on four basic components: (1) landscape succession/disturbance, (2) terrestrial species habitat, (3) aquatic habitat, and (4) human needs, products and services. In addition to promoting the broad-scale restoration and maintenance of ecosystems, conservative direction is also provided to further promote the protection of specific subwatersheds containing important fish populations and specific watersheds containing important terrestrial source habitats and to expand these areas through restoration actions and reducing short- and long-term risks to natural resources from human and natural disturbances.

Comment: *The ICBEMP removes protections that currently exist.*

Response: The Final EIS provides several levels of direction, some of which will directly supercede elements of existing land use plans and some which will augment corresponding land use plan direction. In addition, the proposed decision replaces interim strategies with long-term management direction. Existing land use plan elements not affected by this new direction, including many protective measures, will remain in effect. The Final EIS is based on the Scientific Assessment and subsequent science findings that have shed light on factors contributing to broad-scale cumulative effects relative to forest and rangeland health and special status species.

Ecosystem Health and Ecological Integrity

Comment: *This ecosystem-based approach to federal land management is needed to address the significant forest and grassland health, fish and wildlife and social economic issues facing this region.*

Response: The Final EIS continues with the development of an ecosystem based strategy to support social and economic needs of peoples, cultures and communities, and to provide sustainable and predicable products and services from Forest Service- and BLM-administered lands.

Comment: *If and when "restoration" is attained, what happens then? How will these open park-like forests be managed at that point? How will they be maintained?*

Response: Once landscapes have been restored to a desired mix of vegetation types (habitats), they will be managed in a dynamic way to maintain a range of habitat types across the landscape. For instance, open, park-like stands of ponderosa pine may be maintained through natural and prescribed fire, thinning, and harvest. See the rationale in B-O30 for a more in-depth description of the intent for management of old forests in both the short and long terms.

Comment: *Any reduction in cover of native species or biological crusts, any reductions in fine fuels in shrublands, any increase of weed cover, or any increase in soil disturbances should result in a reduction in livestock grazing, off road vehicle use, and logging until the lands begin to recover.*

Response: The *Scientific Assessment* found that there are multiple risks to ecological integrity and economic well-being, and these risks must be recognized and managed. Risks and opportunities differ significantly across the project area, and any landscape strategy dictating a one-size-fits-all prescription will not take advantage of this wide degree of variability. The description of desired outcomes from public land is outlined in the Supplemental Draft EIS on page 3-53: "Where ecosystems are in good condition, management direction requires that they remain in good condition. Where ecosystem conditions are not as good, the intent of direction is to keep the conditions from deteriorating further until they can be actively or passively restored." Local managers would then determine the best method for realizing these objectives. This may or may not result in changes in use.

Comment: *Ecosystem health and ecosystem integrity are value- laden terms lacking a scientific basis.*

Response: The terms ecosystem health and ecosystem integrity are defined in the Supplemental Draft EIS (page 2-251) and are derived from science publications (Quigley et al. 1997, Hemstrom et al. 2000).

Comment: *The statement in Chapter 4 regarding ecosystems moving away from historical conditions is inconsistent with the discussion of "positive ecological trends" in Chapter 2.*

Response: The discussion in Chapter 4 refers to the momentum of succession that is driving ecosystem changes. In Chapter 2, the "positive ecological trends" refer to some of the improvements in management techniques and understanding that have taken place in the last several decades.

Comment: *It is not stated what the units of landscape health are, nor is it stated if they represent the same number of units. For example do the categories all have the same size?*

Response: The units of landscape health are properly functioning ecosystem processes within a watershed hierarchy. Landscape health can be measured in a number of different ways and unless the processes and functions are operating within a heathy range, the ecosystem cannot be considered truly healthy. Ecosystem processes include plant succession and change, soil build up and protection, hydrologic functioning as it relates to streams erosion and deposition, and many other identified in Chapter 2 of the Supplemental Draft EIS.

Comment: *There appears to be little relationship between these twelve "critical watersheds" (identified in the All-H Strategy) and the 40 high restoration priority subbasins and important fish populations in A2 subwatersheds in the Supplemental Draft EIS. The Final EIS and Record of Decision must explain how habitat restoration priorities were identified, performance standards defined, and how the multiple federal salmon protection policies and processes work together.*

Response: The watersheds identified in the Federal Caucus's "Draft Basin-wide Salmon Recovery Strategy" (July 27, 2000) also known as the "All-H Strategy" and the 40 high restoration priority subbasin identified in ICBEMP and important for fish populations were identified using different criteria. The 40 high restoration priority subbasins are established to help focus restoration activity at the broad-scale, and to focus restoration funding as a strategy to be efficient and effective from the broad scale. This is different from the "critical watersheds" which were identified to protect these watersheds from short term risk to listed species. This "restoration" approach is explained in Chapter 3 under the topic "Aquatic/Riparian/ Hydrologic Restoration" and in the Chapter 3 section on Management Direction–Restoration: Description and Management Intent. "Performance standards" is a concept that is evolving from the All-H Strategy; standards are not a topic for land use planning. Instead, the ICBEMP is focusing on measurable ways of monitoring and assuring effectiveness of direction towards explicit goals.

Comment: *The development and constant flux of the federal All-H Strategy has resulted in a "moving target" for groups trying to gauge federal recovery efforts. At this time, we do not know whether the project's restoration priorities or Bonneville Power Administration's "anything but hydro" approach will apply.*

Response: Federal land managers remain active participants in the Federal Caucus All-H process. The federal habitat component of the All-H Strategy continues to be the direction that will guide federal land management from ICBEMP. The ICBEMP science is the best and most current available information about the contribution of federal lands towards the habitat needs of listed anadromous fish species.

Tradeoff / Balance

Comment: *Timber harvest should be an integral component of this ecosystem management project since it offers a key tool in resolving forest health problems, in maintaining healthy ecosystems, and facilitating vibrant economies.*

Response: Forest thinning is a tool that can be used as part of a forest restoration strategy. Periodic natural disturbance has been integral to ecosystem processes and functions. Fire has been taken out of many of these ecosystems and must be returned where possible. However, in some areas, fuel loads have increased to a stage where using prescribed fire can only be accomplished safely after thinning reduces the fuel loads and removes fuel ladders. Although thinning does not contribute all of the benefits of fire, in some locations where dangers from fire are too great, thinning may be the best activity available to replace fire. Timber harvest also provides economic benefits to the people of the Basin.

Comment: *It is inappropriate for this document to focus on short-term economic gains of resource extractive industries over the long-term economic and ecological health of the region. Public land mangers must not underestimate the devastating economic impact of declining fisheries, poor water quality, and lost recreation and tourism that result from resource extractive industries.*

Response: The proposed action establishes to balance the risks from management with the benefits from economic gains to communities. The *Scientific Assessment* provided the basis to look at the various risks and opportunities for actions that could be taken. There are tradeoffs and benefits, and these should be looked at in an integrated fashion, rather than one topic at a time or one issue at a time. This is what ecosystem management strives to accomplish. For example, the risk to an ecosystem from catastrophic events or the spread of noxious weeds (which could result in a higher loss of fish species or terrestrial wildlife habitat) may be higher than the risk to the same ecosystem from restoration activities.

The direction includes statements of intent, guidelines, and standards that are designed to protect and promote the ecological health of the basin, such as: Riparian Conservation Area direction, snag and coarse woody debris requirements, and old forest direction. In addition, the step-down process (Subbasin Review, EAWS, land use planning, and project level planning) are collaborative processes that allow managers to assess finer scale risks and provide information and public comment opportunities to inform the local decisions.

Comment: *It is unclear how conflicts at the local level will be resolved. How will decisions be made based on conflicting ecological, socio-economic, and tribal concerns?*

Response: Conflicts at the local level will be resolved by local managers as they evaluate risks through the step-down process. The Supplemental Draft EIS has a priority system for application of management direction: threatened and endangered

species direction, Riparian Conservation Area direction, A1 subwatershed direction, terrestrial watershed direction, A2 subwatershed direction, restoration direction, and other base-level direction. These layers of direction work together in a hierarchical manner to reduce conflicts in management direction.

Comment: *The proposal removes current guidelines and protections for old-growth forests and riparian areas and replaces them with logging.*

Response: The ICBEMP identified in the project charter that a purpose of the project was to replace the interim strategies of PACFISH, INFISH, and the Eastside Screens with a long-term, ecosystem based strategy. In addition, court decisions state that these strategies would be replaced. This intent is explained in Chapter 1 of the Supplemental Draft EIS. (See Requirements or Authority for New Long-term Management Direction.) The analysis of the effects of the interim strategies (and some others) is included in the Alternative S1, the no-action alternative in the Supplemental Draft EIS. Components of the strategies have been incorporated into the action alternatives, when they fit the overall theme of the alternative.

The Supplemental Draft EIS proposes both restoration and protection measures for riparian areas and old forests. Thinning is a restoration tool that could be used in these areas only if it maintains or promotes the ecological health of these important areas.

Comment: *The plan does not address off-road vehicles.*

Response: Use and management of off-road vehicles is an issue better addressed at the local BLM District and National Forest level.

Manage to Preserve Natural State

Comment: *Large landscapes, forests, and primary watersheds have been subject to abusive logging, road building and grazing and should be set aside to heal naturally, without management intervention.*

Response: The *Scientific Assessment* analyzed the potential effects of passive management (Quigley et al. 1997). The science team found that in disturbance ecosystems, not taking action can cause negative effects on fish, wildlife and other important values from uncharacteristic fire, noxious weeds, or diseases in particular situations. To implement passive management, except for fire exclusion, could push the ecosystems into further departure, while escalating fire risk due to increased fuel loads, development of fuel ladders, development of over-dense forests and rangelands, and stressed forests leading to insect and disease problems, mortality, and even higher fire risk.

Comment: *Where is the scientific data that show riparian areas and rangelands will recover faster with livestock grazing than without it? Where is the monitoring plan to validate that the preferred alternative is needed, where is the monitoring plan to validate that the preferred alternative after it has been implemented, and where are the control areas to make sure this massive experiment is sound?*

Response: The science-based strategies on which the proposed action was built focus on the multiple risks to ecological integrity and economic well-being that must be managed across the basin; they also emphasize the fact that risks and opportunities differ significantly across the basin, and that linkages exist among various scales. The selected strategies did not establish that any one use would have to be dominant over all other uses or be achieved at a rate that far surpasses other activities.

The emphasis for science, which was built upon in the management direction, is that uncharacteristic livestock grazing can have negative effects and deter ecosystem restoration. The rate of restoration of lands back into a pattern more consistent with historical variation would take time.

Monitoring strategies to assure implementation is occurring as planned and is effective, are identified in Appendix 10 of the Final EIS.

Comment: *Since the Supplemental Draft EIS acknowledges the problems associated with cattle grazing, why isn't an alternative that removes cattle from the rangelands analyzed?*

Response: A management strategy that is single issue focused (such as to eliminate all livestock grazing from federal land) is inconsistent with the purpose and need for the project. Instead, the project focused on management strategies that would prevent uncharacteristic livestock grazing and initiate strategies that would restore these lands into a pattern more consistent with historical variations in vegetative conditions. The science also identified that the

primary impact from livestock grazing most likely occurred from between 1880 to 1940.

Manage for Multiple Use

Comment: *Our forests are renewable resources. This proposed plan causes severe restrictions on use of many of our forests. We need to go back to the original purpose and need of why the Forest Service was initially established: to provide goods and services to the American people. Multiple use must remain a major part of any policy to manage public lands.*

This document leads us to believe that the decision was made to abandon multiple-use in favor of ecosystem management.

Response: The Supplemental Draft EIS provides for multiple uses of BLM- and Forest Service- administered lands in the project area. Areas in need of restoration have been identified and prioritized. Restoration will promote the ecological health of that area and where possible, provide socio-economic benefits to surrounding communities. The direction in the proposed action is consistent with BLM and Forest Service authorities for multiple use and sustained yield resource management of these federal lands.

The accepted definition for ecosystem-based management is the application of ecosystem concepts to achieve multiple-use management of public lands by blending the needs of people and environmental values in such a way that Forest Service- and BLM-administered lands represent diverse, healthy, productive, and sustainable ecosystems.

The Final EIS is consistent with multiple-use management.

Restoration

Comment: *Alternative 4 of the 1997 Draft EIS promotes aggressive restoration and restores 39 million acres in a decade. Under the Supplemental Draft EIS it would take nearly 25 years to treat lands at risk. Why didn't the Supplemental Draft EIS address the issues brought up by the "cohesive strategy"?*

Response: The Supplemental Draft EIS prioritized restoration to conform to budget constraints. With increased budgets, greater restoration is possible. The Supplemental Draft EIS focuses attention on those areas where the greatest gains can be made in the most efficient manner.
The "cohesive strategy" is a policy paper for the Forest Service that identified policy options across all the National Forest lands in the western United States to address potential wildfire problems. The "cohesive strategy" was built on some of the same science as ICBEMP and used coarse, broad-scale information for its analysis. The "cohesive strategy" policy document and ICBEMP are not in conflict with each other in their analysis of the problem and their proposed solutions.

Comment: *Each National Forest should be assigned a guidance-only target for restoration. These targets would inform each forest of the level they need to achieve in order to make real progress toward restoration.*

Response: The Record of Decision will replace interim strategies (PACFISH, INFISH, and Eastside Screens) with a broad-scale plan that will not only conserve the scarce species, habitats, and other resources, but will also restore ecosystem health in an integrated manner. It is not possible, however, to assign targets in a broad-scale plan that apply to fine-scale field units. It is up to local land managers to determine the most effective manner to achieve the project's broad-scale objectives. Local managers will use a series of analyses to inform these local decisions.

Comment: *Prove that active restoration works on a small scale before you apply it on a large scale.*

Response: The *Scientific Assessment* identified the types of restorative actions needed to manage these types of disturbance-based ecosystems. The primary outline for this is the discussion: "A Framework for Ecosystem Management of the Interior Columbia Basin (Haynes, Graham and Quigley 1996). More detailed discussion is in Hann, Jones, Karl, et al. (1997) which shows that active ecological management (active) was effective at restoring ecosystem health while traditional reserve (passive) and traditional commodity management were not. They predicted that using passive management would require 2 to 4 severe disturbance cycles to restore a healthy forest ecosystem.

Comment: *How will budgets be shifted to drive projects in high restoration priority subbasins?*

Response: Assumptions about how budgets were created, used, and applied were made in the Supple-

mental Draft EIS and disclosed in the Appendix 16. Scientists and land managers have agreed that budgets (both current and future, as well as budgets to be developed) will recognize the integrated direction and priorities of ICBEMP. This emphasis will be consistent with current law, agency practice, and national priorities. Land managers will use existing agency administrative processes to make budget adjustments over time, they will then use the guidance and expertise of the implementation organization that is created after the Record of Decision.

Short-term vs. Long-term Risk

Comment: *While the document outlines appropriate long-term goals, it does not adequately address potential conflicts which may occur in the management of short- and long-term risks.*

Response: Both short-term and long-term risk management are goals of the Supplemental Draft EIS. The preferred alternative conserves the most intact ecosystems in the short term with the intent of expanding these healthy areas in the future. In other words, very little risk will be taken in high quality habitat areas, areas containing listed species, and other fragile areas. Restoration will occur in other areas where there is an opportunity to restore the vegetation composition, structure, and disturbance regimes. The short-term risks taken in these areas are necessary in order to reduce the threat of long-term risks to the ecological health of the area.

Comment: *We note that local land managers are to consider the acceptable levels of short-term and long-term risk from conducting management actions and from conducting no management actions. However, the Supplemental Draft EIS does not provide a framework for making these risk assessments. Absent clear direction, any decision will be subject to challenge and resulting gridlock.*

Postponing risk analysis to Subbasin Review and EAWS means that decision-makers will only be looking at part of the picture and therefore, unable to fully assess the risks.

Levels of acceptable risk to resources are inappropriately left to determination at the local level when the framework for this determination can and should be a key product of this regional planning effort.

Response: Risk assessment must be done at both the broad-scale and the fine-scale. The Supplemental Draft EIS has identified and analyzed broad-scale risks and developed standards and objectives to mitigate those risks in the short-term such as Riparian Conservation Area direction, snag and coarse woody debris requirements, A1 subwatershed direction, old forest direction, terrestrial watershed direction, and road direction.

Other risks become apparent at different scales. These risks will be identified through the step-down process: Subbasin Review, EAWS, land use plan revision, and project-level analysis. In this way, the important risks can be assessed at each level for effective and efficient decision making.

Comment: *It is unclear why Objective A1-O2 does not include the concomitant requirement that low short-term risk be posed to long-term objectives by taking the approach as in the parallel objections for A2 subwatersheds.*

Response: The assumption is that A1 subwatersheds are more resilient to disturbance than A2 subwatersheds because A1 subwatersheds are closer to historical conditions. Therefore, there is a difference in assessing risk between the two types of subwatersheds.

Comment:*The direction is the Supplemental Draft EIS provides and appropriate balance between analysis and action. Assessing the short-term environmental risks of conducting restoration activities must be considered in light of the long-term risks of doing nothing. Some short-term risks must be avoided at the cost of long-term risks and visa versa. A consistent and accountable approach to addressing both short and long-term risks is needed.*

Response: The proposed decision works to meet the social and economic needs of people in the basin, while meeting ecological and restoration goals. The risk management strategy described in the fundamental architecture of the proposed decisions also strives to strike a balance between the short term risk and the long term risk, while remaining sensitive to the short term risk requirements of listed species.

Step-down Process

Analysis Levels, General

Comment: *There is an overemphasis on planning and analysis not enough emphasis on implementing projects.*

Response: The preferred alternative emphasizes minimizing short-term risk, especially to special

status species, important habitats and riparian areas. It places greater emphasis on conducting analyses prior to designing and approving management actions. It encourages use of the systematic, step-down approach for understanding current resource conditions, risks, and opportunities at various scales to better inform decision making relative to achieving desired outcomes.

Subbasin Review

Comment: *The protocols for Subbasin Review have not been finalized and have not undergone outside expert review. In order to ensure the credibility of this tool, we recommend that independent scientific validation of the proposed protocols be secured. In addition to peer review, some accountability for implementation of Subbasin Review findings must be included.*

Response: The protocol for Subbasin Review, *Ecosystem Review at the Subbasin Scale*, Volume 1, Version 1.0 (Subbasin Review Guide) was released in August 1999. It was developed by an interagency team and was based on the experience gained from several prototype Subbasin Reviews. Subbasin Review direction in the EIS was adjusted to address the need for peer review and increased accountability, calling for periodic agency reviews of a limited sampling of Subbasin Review reports. The Subbasin Review Guide and process are dynamic, recognizing that there could be adjustments as more experience is gained from its use.

Comment: *Standard B-S4(S2) requiring high restoration priority subbasins to be reviewed within two years is unrealistic. This standard needs more flexibility.*

Response: This standard has been changed to require the completion of Subbasin Review on high priority subbasins within three years.

Ecosystem Analysis at the Watershed Scale

Comment: *Depending on the schedule of completion of Ecosystem Analysis at the Watershed Scale (EAWS), the state may have to wait several years to obtain access across federal lands.*

Response: Criteria for conducting Ecosystem Analysis at the Watershed Scale (EAWS) are provided in Chapter 3 of the Final EIS, Standard B-S5. The length of time required to conduct an EAWS would depend on the nature and scope of the proposed action and access needs . See also the Management Intent for EAWS in Chapter 3.

Comment: *The time allotments, necessary resources, and analytical expectations for Subbasin Review and Ecosystem Analysis at the Watershed Scale (EAWS) are too open-ended for dependable implementation. The amount of analysis required under EAWS or subbasin review is problematic because of declining staffs of both the managing agencies and the regulatory agencies.*

Response: It is expected that the Subbasin Review process will be a concentrated review of existing information that takes place in a relatively short period of time. The core team should spend no more than four to eight weeks. The five-step Subbasin Review and six-step Ecosystem Analysis at the Watershed Scale processes will assist in the prioritization of issues and needed activities reflecting a more efficient use of scarce resources. In addition, there will be focused reviews during the first years of implementation to determine if the objectives are being accomplished and at what cost. At that time, adjustments could be made.

Comment: *It is unclear how EAWS relates to "may affect" or "may adversely affect" determinations using the National Marine Fisheries Service and U.S. Fish and Wildlife Service matrices (Appendix 9).*

Response: Ecosystem Analysis at the Watershed Scale (EAWS) is not a decision-making process. It is intended to ensure that the location and design of activities are improved with the information generated through EAWS. Endangered Species Act (ESA) determinations of "may affect" or "may adversely affect" are determined later in the process. After an activity is located and designed using data from EAWS, the ESA determinations are developed. Use of EAWS should result in fewer projects receiving a "may adversely affect" determination.

Comment: *The EAWS process does not require that standards be developed on the basis of the needs of fish, wildlife, or plants. Instead, they apparently look at what they think the watershed is capable of producing. Accordingly, once they have decided the capability, then fish and wildlife habitat standards should be modified accordingly.*

Response: The six-step Ecosystem Analysis at the Watershed Scale characterizes the watershed, identifies issues and key questions based on that characterization, documents the current conditions in the

watershed and reference conditions based on changes relative to human influence and natural disturbance. That information is interpreted, and management recommendations are developed. These recommendations will be considered in land use plans where fish and wildlife standards can be modified.

Comment: *How and who makes the call on how much to negatively affect threatened, endangered or proposed species for the "good of the ecosystem?" Clarification is needed to prevent a lack of analysis of cumulative effects across administrative boundaries.*

Response: Broad-scale science findings and land use decisions will be applied to site-specific areas using a hierarchical approach that promotes understanding of current resource conditions. The mid-scale analysis (Subbasin Review) translates and transforms information from broad-scale into mid-scale information which can be used to provide context for finer-scale analysis. Subbasin Review is a collaborative, interagency process which is particularly useful for cumulative effects analysis required by NEPA. Land managers using information collected in this hierarchical, collaborative, ecosystem approach will be able to make better decisions using data at multiple scales irrespective of administrative boundaries.

Adaptive Management

Comment: *It is unclear how or when adaptive management will be implemented and how direction will remain consistent across the region.*

Response: Adaptive management is a continuing process of planning, implementation, monitoring, and evaluation to adjust management strategies across the basin. It will be applied as an iterative approach starting with monitoring to determine if planned activities have been implemented and standards and objectives followed. Effectiveness monitoring will detect basin-wide trends and the determination of the cause of these changes. This monitoring data will be used to evaluate and adjust management strategies to meet basin-wide goals and objectives. The EIS presents a framework for an implementation organization. That organization will assure that management direction and monitoring strategies are applied consistently across the basin.

Comment: *The loose description of adaptive management in a plan that presents no standards, no description of monitoring activities, no time-line, and no requirement that management be changed is not sufficient. The project doesn't promote or incorporate adaptive management as a viable concept and tool for avoiding management gridlock and managing risk within the context of compliance with federal laws.*

Response: Monitoring and adaptive management are key features of both Alternatives S2 and S3. An implementation and adaptive management framework is presented in Appendix 10. Further direction on effectiveness monitoring and adaptive management are contained in standards and objectives in Chapter 3 relative to accelerated learning and management adjustment.

Monitoring

Comment: *Include a monitoring plan in the Final EIS.*

Response: The implementation monitoring plan can be found in Appendix 10 of the Final EIS. Within two years of the signing of the Record of Decision, an effectiveness monitoring plan will be completed

Comment: *Monitoring should cover all applicable water quality standards. In the Supplemental Draft EIS, monitoring of water quality standards is discretionary. Under this approach, how will land managers assert that applicable water quality standards are being met if not all of the standards are being monitored?*

Response: Alternatives S2 and S3 include standards that require the use of the Forest Service and BLM protocol to address waters listed under section 303(d) of the Clean Water Act. The protocol requires the land management agencies to validate current 303(d) lists, work with state agencies and local tribes to set priorities and time lines for addressing listed water bodies, and bring listed segments into compliance, among other requirements. Monitoring to address state-developed and EPA- approved water quality standards will occur at a finer scale than this EIS. Land managers will be required to monitor the effects of individual projects on water quality.

Comment: *There is a requirement for each administrative unit to contribute resources to implement a broad-scale monitoring plan that is not yet developed. Prior to signing the Record of Decision (ROD) the complete monitoring and evaluation program should be described and made available for public review and comment. The Final EIS and ROD should provide clarity and commit-*

ment to a monitoring strategy and an oversight implementation organization that would increase assurances that the broad scale needs, goals, and objectives are being addressed.

Response: An implementation organization framework has been added to Appendix 10. It will be amended to outline the appropriate organizational needs for oversight, science, data management, monitoring, and issue resolution. The intent is for the Record of Decision (ROD) to contain an implementation monitoring plan and requirement that the remaining monitoring strategies be developed jointly with Forest Service regional offices and BLM state offices collaboratively with intergovernmental partners within two years of the ROD being signed.

Comment: *The Final EIS should describe how the monitoring and evaluation described on pages 51 and 52 of Chapter 3 in the Supplemental Draft EIS is different than what is already required by the National Forest Management Act (NFMA) and Clean Water Act.*

Response: The ICBEMP monitoring strategies will be consistent with what is required in the NFMA, Clean Water Act, Federal Land Policy and Management Act (FLPMA), and other relevant laws.

Comment: *How will the issues identified during EAWS be monitored over time, and how will they be used as part of the adaptive management process to change management practices?*

Response: EAWS will identify issues and key questions which will be synthesized into management recommendations at the watershed scale. Monitoring activities will be developed that are responsive to the issues and key questions identified during EAWS. Monitoring results will then be evaluated to adjust management strategies if necessary to meet the objectives outlined in the EIS.

Comment: *Will there be sufficient resources to ensure that monitoring is conducted and effective?*

Response: Although the agencies do not control the amount of funding appropriated by Congress, it is expected by both BLM and Forest Service planning regulations that sufficient resources be available to conduct both implementation and effectiveness monitoring.

Scale and Decisions

Scale

Comment: *For some respondents:*
The plan is too restrictive and will leave little or no decision room for local land managers who know what is best for the forest. Local managers must conform their decisions to the new philosophy of protecting and restoring ecosystems without regard to local input or adverse effects on the local or regional human population. The Supplemental Draft EIS, like the Draft EISs, elevates decision-making to regional and national levels.

While the Supplemental Draft EIS claims to give flexibility to local managers, it requires considerable finer-scale analysis to change from the default and risk-averse standards. Given budget and time constraints normally experienced by federal forest managers, default standards and passive management approaches will be used in the majority of cases.

For other respondents:
There is too much discretion left to local managers. More specific standards are needed.

Response: The variability of the interior Columbia River Basin requires that management direction provide some degree of flexibility to accommodate the diversity of the region. The management direction provides specific outcomes that are to be achieved across the landscape but gives managers the flexibility to develop the best methods for achieving outcomes. Managers will be guided through the process of achieving the broad-scale objectives by specific sideboards, including: Subbasin Review, EAWS and specific standards within the Supplemental Draft EIS that apply to sensitive areas such as riparian areas, old forests, and habitat for threatened and endangered species. The primary value of these analyses are to provide local managers with the type and level of information needed to ensure their site-specific decisions will be consistent with the land use plans as amended by the ROD. All projects initiated at the local level must also comply with the National Environmental Policy Act and the Endangered Species Act.

The hierarchical management direction and analyses, as described in Chapter 3, pages 39-52 of the Supplemental Draft EIS, are crucial when attempting to manage large, diverse landscapes such as those in the

project area. The results of mid- and fine-scale analyses provided by Subbasin Review and Ecosystem Analysis at the Watershed Scale (EAWS) are essential to achieving the Final EIS objectives. By proposing site-specific management actions, that are within the context of these analyses, local managers will have better opportunity to balance needs and be less likely to negatively impact threatened, endangered, or proposed species or species at risk.

Comment: *The logic for applying management directives, which vary in specificity among the various planning scales, is not clear. Subsequent decisions to be made at the subbasin, administrative unit, and watershed scales would be handicapped by the poorly defined concepts and data inconsistencies in the broad-scale plan. Until there is one plan that deals with all aspects of forest management, ICBEMP will have little effect.*

Response: The intent of the broad-scale management direction is to augment, and in some cases replace, specific direction in the land use plans that relate to the broad-scale compelling issues as defined in the proposed decision. However, some of the existing direction on a variety of topics, issues and allocations in current BLM and Forest Service land use plans will continue when the Record of Decision is signed. The purpose of step-down management direction is to provide context from broad-scale analysis and science findings to the site-specific areas using a methodical, hierarchical approach. Direction specific to Alternative S2 (see page 3-47 Supplement Draft EIS) addresses this issue.

Comment: *The XXX County Court has from the onset of this project expressed concern over the lack of a true partnership with the local communities. While we have been repeatedly assured such a partnership will exist in the management of the interior Columbia River Basin, we do not see a partnership relationship in the proposed action.*

Response: Local governments have an essential role, defined in law, which federal land managers will continue to build and establish. The topic of collaboration builds on the responsibilities federal land managers have to "states, tribes and local governments". One method to address the needs of communities and establish partnerships is the high restoration priority strategy. One criteria in this strategy identified subbasins with economically dependent communities that may benefit from nearby restoration activities.

The socio-economic and tribal component of Alternative S2, described on pages 3-86 though 3-92 of the Supplemental Draft EIS, specifically addresses the needs of counties.

Comment: *We have seen a number of situations where individuals or groups rely on the coarse resolution modeling results presented in the Supplemental Draft EIS to contest local information derived from site specific data. A greater effort is required to convey to the public that the modeled results are not a substitute for local information.*

Response: A step-down process for applying ICBEMP broad-scale science findings and management direction to site-specific activities on national forest and BLM-administered lands is outlined in the Supplemental Draft EIS. This process is intended to provide the linkages between broad-scale information and fine-scale data to provide the context for designing and/or modifying site-specific management activities.

Comment: *Monitoring is essential to the outcome-based approach for developing standards for project design. Because projects are designed at the site-scale, not the basin-scale, monitoring information must be available at the site-scale, and basin-scale information alone will not be adequate. We are concerned that the monitoring approach now being pursued focuses only at the basin-scale, and will not assure adequate information will be available for step down analyses and planning processes to design standards and projects through adaptive management.*

We see some serious flaws in the data, and the monitoring and adaptive management strategy as these areas relate to ecological scale, because the strategy is broad-scaled or at a "coarse-filter" level of ecological assessment.

Response: Monitoring is required to determine if the management direction is being implemented correctly and adequately. Subsequent finer-scale monitoring could evaluate if the results of site-specific management activities are effective in producing the predicted outcomes. Monitoring and evaluation are discussed in Chapter 3, pages 51-52 of the Supplemental Draft EIS. Further explanations on the strategies of monitoring are included in Appendix 10 of the Final EIS.

The proposed approach for assisting in the design of site-specific projects involves the application of

context-setting step-down analyses and watershed condition indicators (WCIs), B-S43, page 3-77 of the Supplemental Draft EIS. Fine-scale data from monitoring site-specific projects will be aggregated to provide status and trend of the WCIs. Collectively, the intent is for the aggregation of fine-scale project level monitoring, WCIs, and effectiveness monitoring components to be used in developing feedback for adaptive management.

Comment: *Standard B-S2 (Supplemental Draft EIS, page 3-46) requiring collaboration with the National Marine Fisheries Service, the U.S. Fish and Wildlife Service, and Environmental Protection Agency in conducting Subbasin Reviews should be broadened to include state fish and wildlife agencies and private organizations that may have relevant information.*

Response: The referenced standard applies primarily to the Federal Agency Endangered Species Act Consultation process. For that particular standard, the federal partners are the appropriate agencies to be involved. Other standards, such as conducting Subbasin Reviews and EAWS, apply to state agencies, private organizations, and tribes.

Comment: *A more clear and direct explanation is needed to communicate that the plan is the top-level of a multiple-level series of assessments and that site-specific projects are not intended to be an outcome. Otherwise, the result will be to adopt a programmatic-level philosophy of land management based on ecosystem management and will cloud expectations for on-the-ground operations. For example the step- down approach, which would link the multiple scales of analysis required for a hierarchical ecosystem management approach, is well defined. There are no rule sets to follow when scale or multiple scale specific resource questions should be addressed. Difficulties arise when you try to apply the philosophy to actual project work.*

Response: The *Scientific Assessment* identified that various types of ecosystem risks (degraded habitats, noxious weeds, risk of fire are examples) are best managed at the broad- and mid-scale. Thus, the direction in the Final EIS provides a broad context in which fine-scale risk (decisions made at the local level) can support the risk mA more clear and direct explanation is needed to communicate that the plan is the top-level of a multiple-level series of assessments and that site-specific projects are not intended to be an outcome. Otherwise, the result will be to adopt a programmatic-level philosophy of land management based on ecosystem management and will cloud expectations for on-the-ground operations. For example the step- down approach, which would link the multiple scales of analysis required for a hierarchical ecosystem management approach, is well defined. There are no rule sets to follow when scale or multiple scale specific resource questions should be addressed. Difficulties arise when you try to apply the philosophy to actual project work management strategy at the broad-scale, which promotes a consistent and coordinated approach for ecosystem risk management at the base-level. The step-down process is one tool intended to facilitate this type of risk management. Other risk management strategies include base-level direction intended to restore and maintain ecosystem conditions, and restoration direction for high restoration priority subbasins.

The mid-scale analyses provided by Subbasin Reviews and ecosystem analysis at the watershed scale are essential to achieving the Final EIS objectives in specific situations. These processes aren't the only place, however, where information can be added about risk and opportunities. Proposing site-specific actions within the context of these analyses will provide managers better information for opportunities to balance needs.

Comment: *If portions of Wyoming, Nevada, and Utah drain into the interior Columbia River Basin, why aren't they part of the basin-wide salmon issue? If Utah national forests can replace INFISH standards with a forest plan revision and Nevada national forests can replace INFISH standards with a forest plan amendment process, why can't the other Forest Service and BLM districts do the same? We also have problems with the overlap with the Northwest Forest Plan. To exempt this area because of possible confusion with how Spotted Owl decisions might be affected is highly questionable.*

Response: The *Scientific Assessment* identified ecosystem status, risk and opportunity for all the federal lands within the interior of the Columbia River Basin, as well as portions of the Great Basin in Oregon, and portions of the Klamath River Basin in Oregon. Lands outside of the drainage of the Columbia River in Idaho and Montana were excluded. The Secretary of the Interior and the Secretary of Agriculture in a letter to the Congress (October 8, 1998) identified that the project scope should be narrowed to address only the broad scale, compelling issues, in the project area that must be resolved at the basin level. Consistent with this approach, the regional

executives decided to limit the management direction in the Final EIS to only the project area in Idaho, Montana, Oregon and Washington, although the science will continue to be used by the administrative units in Utah, Wyoming, and Nevada, as appropriate.

In addition, since an approved strategy for the Northwest Forest Plan area is already in place and being implemented, the executives agreed not to duplicate or replace the direction of the Northwest Forest Plan that already applies to portions of the project area east of the Cascade crest in Oregon and Washington.

Comment: *The description of conditions and trends is at a different scale than the application of the ecosystem management proposed in the alternatives. Inclusion of private lands in the conditions and trends evaluation does not give an accurate depiction of the conditions and trends on the actual lands where the direction would be implemented. Environmental change that occurred through urban development and intensive agricultural development will not change as a result of the alternatives. It is not possible for the public to understand or recognize the true need for or implications of the proposed action because the conditions and trends are based on a general area and not on the affected Federal lands. The conditions and trends that are implicated in the purpose and need must relate only to the Federal lands where the alternatives would apply.*

Response: The *Scientific Assessment* data looked at all lands within the interior Columbia River Basin regardless of ownership to assess condition and trend. It was necessary to compile continuous consistent data layers for key landscape components that influence ecosystem processes and functions, such as road density and vegetation. However, the direction in the proposed decision applies only to the BLM- and Forest Service-administered lands in the project area.

The information for conditions and trends in Chapter 2 of the Supplemental Draft EIS, which is based on the *Scientific Assessment*, focuses on those portions of the environment that the management direction (Chapter 3) addresses and that are administered by the BLM or the Forest Service *within* the project area.

Comment: *In Appendix 4 of the Supplemental Draft EIS (Response to Comments), it is stated that the EIS Team was not able to use "fine-scale" information. Applying ICBEMP's definition of fine-, mid- and broad-scale from the glossary, some studies would fall within ICBEMP's definition of fine-scale. However, Ecological Site Inventory (ESI) and other data collected at the same time would be considered mid-scale data according to the definition. On page 12 of this chapter, it is stated that a statistical sample size (of mid scale) was used to map vegetation types, so the question remains, why was BLM ESI data not used to map the basic vegetation types?*

Response: The purpose of the science data was to provide information about the condition of the ecosystem at the broad scale. This required the Science Team to compile continuous consistent data layers for key components such as road density and vegetation. The BLM ESI data is available only in certain areas, in GIS format, and is neither consistent between administrative units nor continuous. The other databases will be useful when making decisions at the mid- and fine- scales, but they were not able to be used to provide broad-scale context.

Comment: *We are in full agreement with federal land management issues being discussed openly with local communities and other partners. However, it is critical that collaboration does not give veto power to a stakeholder. Subbasin Review (SBR) and EAWS must be permitted to go forward without attendance or agreement by each collaborating stakeholder.*

Response: An important element of the step-down management direction contained in the Final EIS is to conduct mid- and fine-scale analyses in a collaborative environment. It is important to note that step-down in itself is not a decision-making process, but it does provide information and context to make well-informed decisions. Collaboration can promote awareness and understanding of agency-specific issues. However, if all collaborating partners cannot agree, the Final EIS management direction permits land management agencies to continue with the step-down process per direction in chapter 3, page 47 of the Supplemental Draft EIS.

Comment: *The economic analysis in the Supplemental Draft EIS considers economic factors only on a macro-economic scale region-wide, and does not consider the true impacts on local communities or local businesses.*

Response: The analysis of the social and economic conditions of communities, counties, and economic regions is disclosed and discussed in the *Scientific Assessment*, *the [Social and Economic Condition of Communities]* report (February 1998) and the Report to Congress (April 2000). Given the resolution of

the data, the method of collection, and the assumptions, these data are not useful to predict social and economic impacts to individual communities. The information was useful in determining trends and impacts at the basin scale and at the scale of RAC/PACs.

Comment: *National Environmental Policy Act (NEPA) requires that information must be of high quality. NEPA also requires expert agency comments. The Supplemental Draft EIS does not meet these NEPA requirements regarding the issues relating to the requirements of the Wild and Scenic Rivers Act. The Supplemental Draft EIS did not discuss why previous forest plans ignored the requirements of the Act to either perform eligibility studies on creeks and streams that may have outstandingly remarkable fisheries values or protect those creeks and streams from damage until eligibility studies were undertaken.*

Response: The information presented in the Supplemental Draft EIS represents the best science available. Evaluation of eligibility under the wild and scenic Rivers Act is a responsibility of land use planning at the National Forest and BLM district level. It is outside the scope of the ICBEMP to evaluate the eligibility of a specific portion of a river as that requires fine-scale data and was not identified in the project's purpose and need.

Comment: *The preferred alternative does not provide needed guidance on the planning and implementation of connectivity and broad-scale linkages. Although direction is included for the development of broad-scale connectivity/linkages of wide-ranging carnivore habitat, there is little guidance as to how this will be carried out. Greater detail is needed if this directive, an important management goal, is to be made a reality.*

Response: An example of an ongoing effort to address broad-scale linkages was added to the proposed decision in the Final EIS to indicate a way of accomplishing the desired outcome.

Comment: *During the period of development of the EIS, Forests throughout the project area have revised the boundaries of 5th-field (watershed) and 6th-field (subwatershed) Hydrologic Unit Codes (HUC) to comply with national protocols for watershed delineation. While 4th field HUCs remain unchanged from those identified within the ICBEMP document, changes in watershed and subwatershed boundaries require "crosswalking" the ICBEMP watersheds and/or subwatersheds to the newly revised national watersheds and subwatersheds before ICBEMP spatial data can be used in assessment documents. The cross-walk process, besides being time consuming, can also result in some erroneous determinations in cases where new national watershed and subwatershed boundaries depart significantly from corresponding ICBEMP boundaries.*

Response: The final delineations for watersheds and other land allocations such as Riparian Conservation Areas (RCAs) and Terrestrial T Watersheds will be made by local land managers using results from mid- and fine-scale analyses, data, and knowledge.

All projects must work within the limitations of data and assumptions. Any errors that may be found in the information and the boundaries of watersheds/subwatersheds as these boundaries are applied on the land, are expected to be within the normal acceptable bounds of a project such as this, and are not anticipated to affect the accuracy of the estimation of effects in the Final EIS.

Comment: *The broad-scale and fine-scale do not connect, and cannot be connected through the proposed follow-up analyses. The project is inconsistent in addressing the scale of the decisions to be made (e.g., chapter 1, Page 16). On the one hand, the Supplemental Draft EIS states that, "the broad-scale nature of this EIS does not include site-specific decisions." Yet the Scientific Assessment and Chapter 2 of the Supplemental Draft EIS (Affected Environment) crosses back and forth from broad-scale to fine-scales such as descriptions of riparian areas.*

To repair these problems, follow the maxim that broad-scale analysis should lead to broad-scale guidance to managers. The Supplemental Draft EIS should amend regional guides only, and not amend individual forest plans. Otherwise, the Supplemental Draft EIS attempts to do too much with not enough information and becomes a regional plan instead of a regional guide as required by the National Forest Management Act (NFMA) regulations.

Response: The regional-level landscape analysis and scientific documents that are the scientific bases for the Final EIS support an outcome-based approach that provides basin-wide direction but allows local managers to determine necessary prescriptions and site-specific activities based on local conditions. The scientific underpinnings of this conclusion include the multiple risks, variations, and linkages that are necessary in a project area this diverse and complex.

The logic and reasoning behind these "connections" can be found in Figure 3.1 of the Supplemental Draft EIS, titled "Implementation of ICBEMP Tiered Analysis System".

The intent of the Final EIS broad-scale management direction is to augment, and in some cases replace, direction in regional guides (which apply to Forest Service only) and land use plans. Direction is focused on those compelling broad-scale issues that make a difference on ecosystem conditions at the broad-scale. This topic is described in Chapter 1 section titled What the Decision will Provide and What the Decision will not Provide. For the most part, fine-scale decisions will be deferred to individual administrative units after appropriate site-specific NEPA analysis. Those decisions must be made within the context of the broad-scale direction in the Final EIS

Comment: *There is little discussion about the potential differences that will develop among ownerships in the way vegetation is treated. In many cases federal forest lands are surrounded by quite different management strategies, which seems to exacerbate the number of situations associated with endangered species. Analysis of other ownerships was not done.*

Response: Ongoing and foreseeable activities on adjacent non-federal lands, including management applications and potential effects, were considered as part of the cumulative effects analysis conducted by the Science Advisory Group.

Comment: *The area included is too large and diverse to be lumped into one plan. The standards are too restrictive and result in a "one-size-fits-all" management scheme. This type of management structure is inconsistent with the dynamic nature of ecosystem management and eliminates any opportunity to apply adaptive management.*

None of the Supplemental Draft EIS alternatives provide management direction to replace one-size-fits-all interim direction (PACFISH, INFISH, Eastside Screens) with functionally driven, performance-based direction. Many of the interim standards are in fact not broad-scale direction, but fine-scale direction. A successful ecosystem management strategy, as envisioned in the Project Charter, would replace interim protection strategies not only in form, but in management philosophy, approach, and scale.

Analysis at a broad level often masks the changes that occur at smaller scales. The ICBEMP document constantly states "those differences will become more apparent at the fine scales." If those changes are only apparent at the fine scale however, they will be missed at the broad-scale level. Those fine scale differences could significantly affect the environmental effects predicted by Supplemental Draft EIS. We believe ICBEMP direction should not be imposed as a top-down set of requirements. Instead they may be offered as one alternative in a set of alternatives, all of which show the effects at the local and regional level.

Response: The interim strategies (PACFISH, INFISH, Eastside Screens) were intended to be short term and risk aversive. The ICBEMP strategy is a long-term approach that does incorporate some direction from the interim strategies into the hierarchical management direction to conserve and restore aquatic, riparian, and terrestrial resources.

The direction in the Final EIS provides a broad context in which fine-scale decisions made at the local level are able to support the needs of large-scale issues that could be affected by local actions. This strategy promotes a consistent and coordinated approach for the local decisions by establishing parameters based on scientific information. The step-down process is one tool intended to ease the implementation of the Final EIS management direction.

The strategies in the proposed decision are intended, to the extent possible, to avoid arbitrary application of standards across the basin, which science has indicated may lead to the wrong outcomes. Instead, direction is built on the principle that the project area's varied landscape has a multitude of conditions and capabilities. Any landscape strategy dictating a one-size-fits-all prescription will not take advantage of this reality. A strategy, such as the interior Columbia River Basin Ecosystem Management Project, that recognizes and takes advantage of the variability across the landscape will be more successful.

Decision-making

Comment: *The Supplemental Draft EIS is an improvement over the Draft EISs but fails to provide adequate guidance to decision makers. The fine-scale data needs of local managers may not be consistent with the Supplemental Draft EIS.*

Response: The proposed decision applies geographically specific direction, restoration direction, base-level direction, and process direction across the basin. This new direction directly amends or augments current direction in existing land use plans. Existing land use plan elements not affected by this new direction remain in effect. The process direction, particularly step-down, provides for ecosystem assessments at the fine scale to match broad-scale direction to appropriate landscapes and to provide the necessary support for informed decision making at each scale.

Comment: *ICBEMP should be terminated without a Record of Decision. Management should continue under existing land use plans.*

Response: The agencies have determined that the ICBEMP is the most effective way to replace interim direction for threatened and endangered species across the basin and to address issues that cross administrative units.

Comment: *At this enormous regional level, only a guidance document can work. Further work on this project should focus on providing local managers with guidance and information only.*

Response: The *Scientific Assessment* shows that a combination of scale-appropriate direction (with limited geographically specific direction and more extensive restoration and base-level direction) and process guidance most effectively addresses the broad-scale issues and identified purpose and need for this project.

Comment: *ICBEMP should be terminated without a Record of Decision. Management should continue under existing land use plans.*

Response: The agencies have determined that the ICBEMP is the most effective way to replace interim direction for threatened and endangered species across the project area and to address issues that cross administrative units.

Comment: *Site-specific management decisions should be made by local decision makers, local citizenry and parties directly and personally affected by resource management decisions. The Supplemental Draft EIS does not support this approach.*

Response: The Local, Regional, and National Uses discussion in Chapter 2 of the Supplemental Draft EIS identifies changes in public land use that indicate a shift from lands being primarily local and regional assets to being regional and national assets. "While these lands have always been national assets by definition, the actual use and way the lands are valued increasingly reflect this." The objectives and standards in the action alternatives provide appropriate regional direction, designed within the context of the Scientific Assessment and national policies, while providing for local decisions informed by regional context and finer-scale, collaborative ecosystem assessments.

Comment: *There is too much agency discretion at the local level.*

Response: The integrated management strategies embodied in geographically specific, restoration, and base-level direction, in addition to the portions of the existing land use plans not amended by this new direction, establish goals and parameters within which local decision-making must be made. The step-down process adds mid- and finer-scale ecosystem assessments to match broad-scale direction to applicable landscape types and conditions and to further inform local decision-making.

Comment: *There is not enough flexibility and too much analysis required of local managers. The plan needs to have broad objectives and allow local managers to have the latitude to meet them. Alternatives S2/S3 establish 112 objectives, standards, and guidelines, plus additional pages of management direction, management intent, and rationale statements that are also mandatory direction. This amount of direction is contrary to your statements that ICBEMP is not site-specific and/or making fine-scale decisions.*

Response: **The step-down process adds a systematic approach for understanding current resource conditions, risks, and opportunities, by adding ecosystem assessments to the existing decision-making hierarchy in the Forest Service and BLM. This information is necessary to ensure that site-specific decisions implement broad-scale, outcome-based direction (responding to the broad-scale cumulative effects that individual plans could not adequately address) while giving managers the discretion necessary to select actions that fit the**

on-the-ground conditions. The integrated strategy, expressed through resource objectives and their associated standards and guidelines, reflects the breadth of issues, risks and opportunities across the basin. Focusing on outcomes versus specific restrictions on actions and on context-setting and prioritization processes to inform finer-scale decisions does not constitute site-specific direction.

Comment: *The EIS has a heightened legal requirement to expand its range of alternatives and broaden its analysis of effects. The EIS has a difficult practical problem of gathering forest resource data and developing models to evaluate the data.*

Response: The Draft EISs analyzed seven alternative management strategies, and the Supplemental Draft EIS analyzed three additional alternatives. These alternatives provide a reasonable range of approaches to meeting the identified purpose and need for the project and a basis for comparing environmental consequences. The comprehensive Scientific Assessment and related science products, as well as the many data sources across the basin, provide an extensive foundation from which to base broad-scale findings, alternative management approaches, and analysis of their effects.

Comment: *The project does not provide a well-defined forest amendment/revision process.*

Response: Chapter 1 of the Supplemental Draft EIS states that the Record of Decision (ROD) will automatically amend 62 Forest Service and BLM land use plans. Management direction from the ROD, which becomes part of the amended plans, will guide activity-level decision-making until replaced through subsequent amendment or revision. Management direction in current land use plans that is not directly superseded by the ROD will remain in effect. The process of aligning existing planning documents with the new direction will be accomplished by Forest Service and BLM offices after the ROD is signed. A strategy will be provided in the ROD to assure there is no gap in resource protection and management during the transition phase.

Comment: *The current proposal is incomplete because there are major uncertainties about both targeted outcomes and the path to get there. The proposal does not ensure a smooth transition from current direction. Language should be included to describe how existing land use plans will be amended and what the transition process will be between the signing of the Record of Decision and full implementation of the management direction.*

Response: Transition is an important issue and will be closely monitored in the implementation process. A strategy will be provided in the Record of Decision to assure there is no gap in resource protection and management during the transition phase. Language describing how existing land use plans will be amended, accounting for transition from exiting plan to amended plan, will be included in the Record of Decision.

Comment: *Removing the Northwest Forest Plan area from the ICBEMP decision will result in fragmented management direction for the affected subbasins and Resource Advisory Council/Provincial Advisory Council areas. The ICBEMP decision should supercede decisions of the Northwest Forest Plan that pertain to these lands. These eastside areas were not rigorously or adequately addressed by FEMAT, and are more closely affiliated with the ecology of areas covered under the ICBEMP* Scientific Assessment.

Response: The Northwest Forest Plan is an on-going plan which adequately addresses the management of national forest lands it covers east of the Cascade crest. The science assumptions about management prescriptions that may occur in areas of overlap were reviewed, but no changes to the ICBEMP alternatives were considered necessary. The Interior Columbia River Basin science will be evaluated and considered when the Northwest Forest Plan is revised.

Comment: *Will there be an ICBEMP steering committee to implement the decision, or an equivalent Regional Ecosystem Office for ICBEMP?*

Response: The current Executive Steering Committee for the project will continue to oversee the implementation of the Record of Decision and an interagency implementation organization will be established. However, it will be much smaller in scope than the Northwest Forest Plan, Regional Ecosystem Office. A description of the implementation organization is provided in Appendix 10.

Use of Science

Comment: *The Supplemental Draft EIS should clearly identify the process for incorporating the science from the ICBEMP into existing land use plans and present a comprehensive risk management strategy.*

Response: Implementation of the Final EIS direction will lead to incorporation of the science into land use plans. A process to amend current land use plans and incorporate the management direction is discussed in Appendix 10 and will be addressed in the Record of Decision (ROD). A comprehensive risk management strategy is integrated into the management direction.

Comment: *The Supplemental Draft EIS should consider the Scientific Societies Panel's recommendation to protect roadless areas that are 1,000 acres in size or larger from logging and road building.*

Response: The Scientific Societies Panel's recommendations were completed after the *Scientific Assessment* was completed. The Scientific Societies Panel used some of the *Scientific Assessment* information, most notably the ecological value of roadless lands. The size of "roadless" areas is a political and social decision, more than a science-based decision. The *Scientific Assessment* has noted the value of unroaded areas, and how these areas can contribute to species conservation, particularly Wisdom et al. (2000) who note the value of unroaded lands to several terrestrial carnivores.

Comment: *Some respondents feel that ICBEMP science information should be used to reduce risk and create prescriptive implementation standards based on existing PACFISH, INFISH, and Eastside Screens. Others want the science used only as a tool for informing decision-makers because there are too many uncertainties and too few practical applications.*

Response: The *Scientific Assessment* was used in the development of outcome-based direction appropriate to the basin-wide scale. At the basin scale, prescriptive standards would have to be extremely conservative to address conditions that may exist in only limited areas of the basin. Such standards can create unintended adverse effects by limiting needed restoration activities. However, a need for basin-wide outcome-based direction to address identified issues has been indicated in the *Scientific Assessment*. The scientific information generated by the ICBEMP will also continue to be available to decision makers to help inform future decisions.

Comment: *The Supplemental Draft EIS lacks expert agency comments and accurate scientific analysis, as required by NEPA, to explain each of the reasons why state best management practices (BMPs) have not prevented damage to watersheds, fisheries and fisheries habitat on the national forests within the ICBEMP project area.*

Response: Changes in watersheds, fisheries, and fisheries habitat—some of which can be characterized as damage—have been occurring in the interior Columbia River Basin since the mid 19th century. Most of the state BMPs have been in effect for little more than a decade. There are no data recent enough to conduct a quantitative analysis of the effects of the BMPs. BMPs will remain in effect under the proposed decision

Comment: *Please explain: (1) how habitat connectivity measures were used for the environmental index model, (2) how the probabilities for the outcomes were developed, and (3) discuss the statistical reliability of using a weight-averaged percentage of the historical weight-average for reporting the model outputs.*

Response: (1) Habitat connectivity is a measure of the degree to which patches of habitat fall within the dispersal capability of each species. Habitat connectivity was not used in the environmental index model, which assesses habitat conditions at the individual subwatershed or watershed scale. Connectivity was, however, one of three input variables in the population outcome model, which yields a basin-wide model outcome. Connectivity was measured using an algorithm developed specifically for the outcome model. Any subwatershed/watershed with a non-zero value from the environmental index model was mapped and a buffering routine used to join all subwatersheds within the natal dispersal distance of the species.
(2) Probabilities for the population outcome model were developed by the Terrestrial Science Advisory Group, using their expert judgement and general knowledge of example species' population status in the basin. The structure of the population outcome model is based on conservation biology and population biology principles. The structure and conditional probabilities of the population outcome model were peer-reviewed and the approach was supported by these reviews.

3) No model outputs were reported as values relative to historical; however, 2 of 3 model inputs (habitat capacity and range extent) in the population outcome model were entered as a percentage relative to historical. The use of historical values as a reference point was based on the general premise that the intent of management is to manage toward or within the range of historical variability, and that the models portray relative, not absolute, quality of conditions among alternatives and time points. Weighted averages are commonly used in statistical analyses, and generally have good statistical properties, especially when the weights (in this case, subwatershed area) reflect the precision of the estimates.

Comment: *The outcomes developed for the environmental index and population outcome models are not appropriate for habitats in the interior Columbia River Basin.*

Response: At this time no data or analysis techniques are available to reliably conduct a formal population viability analysis for each species at the scale of the interior Columbia River Basin. The environmental index and population outcome models reflect the terrestrial scientists' best understanding of how the system operates at the broad scale and the interactions among system components. Both empirical data and professional judgment were used to build the models. These models were peer-reviewed by habitat and population ecologists, and the reviews support the modeling approach and results. Population outcomes are not a direct measure of population viability but portray a measure of the amount and distribution of suitable environments for individual species across the basin, combined with potential effects of other factors that can affect populations, such as small population size, interspecific competition, and disease. The models are working hypotheses that have not yet been validated through monitoring and research. Scientists are now conducting analyses to validate model predictions for the current time period, and the results will be submitted to peer-reviewed journals for publication.

Comment: *The Supplemental Draft EIS should update its science models by using the classification system developed by the Fire Lab in Missoula, Montana.*

Response: Information used in the Supplemental Draft EIS relative to vegetation and fire regimes was developed at the Forest Service Fire Lab in Missoula. Recent development of nation-wide data by the Fire Lab on vegetation, fire regimes, and fire regime condition class was not used in the Final EIS because it has just become available. This nation-wide data also have lower resolution and confidence than the information developed by the Fire Lab specifically for the project. The nation-wide data on fire regime condition class are similar in definition to ICBEMP definitions of historical range of variability departure, although the ICBEMP has higher confidence because of refined mapping for the ICBEMP Final EIS.

Comment: *The cost factor(s) and projected outcomes used to model the effects of Alternative S3 are not reasonable and result in an inaccurate effects analysis. The cost factor assumes too few acres would be treated, and the models over-weight the uncertainty factor for this alternative.*

Response: The cost factor was assumed to be 25 percent higher in Alternative S3 than Alternative S2 because of less emphasis on step-down analysis and planning in Alternative S3. Less emphasis on this type of planning would tend to result in smaller size contiguous treatment areas, lack of concentrated restoration, and lack of agreement on the desired landscape mosaic. The primary factors found to be significant in reducing per-acre costs of treatments were: (1) increasing contiguous restoration project area; (2) concentration of restoration activities in a large contiguous landscape for multiple years until the desired mosaic was achieved; and (3) an integrated desired landscape mosaic condition established through step-down planning that involved basin and subbasin context for prioritization and watershed analysis to achieve landscape mosaic objectives. There were no differences in the models relative to uncertainty between Alternatives S1, S2, and S3.

Comment: *The Supplemental Draft EIS did not incorporate and cite several peer-reviewed scientific papers provided to the EIS Team by the Oregon Natural Desert Association and did not use pertinent studies from the University of Idaho.*

Response: The Science Advisory Group used the latest science information available in evaluating the effects of the alternatives. Not all information used by the Science Advisory Group is specifically cited in the Supplemental Draft EIS. For example, the Science Advisory Group effects analysis papers are cited in the Supplemental Draft EIS, but not all the information used by the Science Advisory Group in developing the models or analysis are cited. The *Scientific Assessment* cites the many other studies and

papers that were used in developing the scientific publications.

Comment: *The scientific data used by the Supplemental Draft EIS are neither complete nor specific enough to be used for amending land use plans. The uncertainty of the analyses should be more fully disclosed. In addition, the Supplemental Draft EIS inappropriately used aerial surveys and satellite data, surrogates, opinions, and assumptions to develop finer scale management strategies.*

Response: The broad-scale science data cover the entire project area with information on a variety of topics including, but not limited to: vegetation types, fire regimes, terrestrial species of concern, aquatic species of concern, and social and economic conditions. These science data were assessed for accuracy using finer-scale data and determined to be sufficient to describe the historical and current conditions for the project area to predict effects for the Supplemental Draft EIS at the scales of the basin and subbasin, and to determine the dominant characteristics of watersheds and subwatersheds. These were the scales addressed by the Supplemental Draft EIS to amend land use plans. These data were not used for finer-scale watershed analysis or project planning.

The broad-scale data not intended to be sufficient to amend the fine-scale details of local land use plans, watershed analysis, or project planning. Subbasin Review and other step-down processes were designed to provide that level of resolution.

The use of satellite imagery, aerial photograph interpretation, expert opinion, and surrogates are a normal part of all scales of landscape analyses. Those methods have undergone science peer review and scrutiny by experts outside of the project.

Comment: *Previous scientific assessments have called for rapid, aggressive action and the use of commercial harvesting techniques to address forest health concerns. Unless these actions are specifically identified as a part of the restoration strategy, the Supplemental Draft EIS will not adequately address forest ecosystem health hazards and risk.*

Response: Timber management (including commercial harvest, commercial thinning, pre-commercial thinning, salvage, stewardship harvest and thinning for forest restoration, prescribed fire, planting, and other management activities) were included in the models used to project short-term (10-year) and long-term (100-year) effects of the EIS alternatives. Projections indicate substantial increases in commercial harvest, stewardship harvest, thinning, and other forest management activities in the short term. The level of commercial harvest depends on local product and market conditions. Projected management activities were driven by the objectives and goals in the Supplemental Draft EIS rather than by specific commercial timber harvest amounts or locations.

Comment: *The Supplemental Draft EIS uses road density as a surrogate for ecological integrity, and the past effects of roads to estimate likely future effects. In addition, road density data from a three percent sub-sample was extrapolated to all subbasins. This is an incorrect use of data and biases the analysis by overestimating the impacts of road construction and timber harvest.*

Response: Road density was only one of a group of variables used to assess ecological integrity. The aquatic, terrestrial, and landscape assessments all found high correlation of increasing road density with declines in native species diversity, ecological processes, and landscape composition and structure. These assessments and the models used to predict Supplemental Draft EIS effects recognized that current and future road construction techniques will mitigate many of these negative effects, and that increased maintenance of existing roads will reduce negative effects. However, it was also recognized that roads are not a native habitat and that some negative effects will occur irrespective of mitigation. The three percent sub-sample of road density was used in independent correlation and accuracy testing of the road density model. The variables used in the road density model were a group of broad-scale variables (such as terrain, life form, and ownership) that were available continuously across the basin.

Comment: *The conclusions presented in the Summary of Conditions and Trends for Aquatic and Riparian Habitats are not supported by the information presented in Chapter 2. No logic trail is provided to lead the reader from the data collected in the* Scientific Assessment *to the broad conclusions presented in the Supplemental Draft EIS.*

Response: The summary of conditions and trends for aquatic and riparian habitats in Chapter 4 of the Supplemental Draft EIS corresponds with the more detailed discussion of aquatic and riparian habitats in Chapter 2. That discussion refers to information from the Aquatics Chapter (Lee et al. 1997) of the

Assessment of Ecosystem Components, related subsequent publications based on the *Scientific Assessment*, and other citations referred to in the *Scientific Assessment*.

Comment: *The Supplemental Draft EIS fails to analyze the cumulative effects of implementing the proposed alternative in combination with other broad-scale federal land management decisions such as the Northwest Forest Plan, the Sierra Nevada Ecosystem Project, and the Roadless Areas Initiative.*

Response: The analysis of the Supplemental Draft EIS alternatives by the Science Advisory Group accounted for cumulative effects across the entire project area. This included portions of the Northwest Forest Plan area, the northern end of the eastside of the California Cascades, the greater Yellowstone ecosystem, private lands, other ownerships and locations not included in the decision area. These effects are discussed for each landscape, terrestrial, aquatic, and socio-economic topic in the Science Advisory Group's Supplemental Draft EIS effects evaluation.

The interactions of the alternatives with the Forest Service's initiative on roadless areas were examined. Since the Supplemental Draft EIS direction does not propose significant increases in road building on Forest Service- or BLM-administered lands and allows only "rare" road-building in unroaded areas, the effects of the alternatives on the roadless area initiative were judged to be minimal.

Comment: *The classification system used to characterize rangelands does not accurately portray current conditions. In addition, the broad range in the moderate and high impact categories versus the narrow range (0-5 percent) for the low category is inappropriate, as is the use of historical conditions as a benchmark. The use of broad ranges in the lower condition classes make it impossible to detect improving trends until they become very large in magnitude. This system biases the analysis against livestock grazing.*

Response: The rangeland classification system was developed with the oversight of external experts (see administrative record information on rangeland vegetation exert panels) and has been subjected to scientific peer review. Class breaks reflect an unbiased assignment in proportion to area. That is, class breaks were designed to include equal area in each class. The Science Advisory Group recognized that this made trends more difficult to recognize and developed trend components for the major landscape characteristics (see Quigley and et al. 2000, and the Science Advisory Group administrative record).

Comment: *No comprehensive independent scientific review has been conducted to validate the conclusions in the Supplemental Draft EIS.*

Response: From the project's inception, independent scientific peer review of the products produced by the Science Integration Team and later the Science Advisory Group has occurred. All of the procedures, data, conclusions, and recommendations developed by the science teams used in the Supplemental Draft EIS have undergone scientific peer review in the form of more than 50 scientific articles and publications produced by the scientists. Results from the science teams have been or are being published in both national and international scientific journals. This sound foundation of scientific information will be the basis for making reasoned decisions about the management of the natural resources in the interior Columbia River Basin.

The science consistency evaluations conducted by the Science Advisory Group throughout the development of the Supplemental Draft EIS, ensured that peer reviewed procedures, data, recommendations, and conclusions were communicated accurately to the decision makers.

The project has included the most science rigor of any land management plan ever attempted by either the Forest Service or BLM. The assessment, evaluation of effects, and science consistency evaluations made by the scientists involved with the project and the independent peer review of their science documents, ensures that the Supplemental Draft EIS and the decisions made are based on the best scientific information available.

Comment: *The rangeland condition classifications in the Supplemental Draft EIS are different from the BLM's rangeland ecological site inventory and trend data. Please explain why a subjective technique was used in the Supplemental Draft EIS instead of information generated by the BLM's standardized and objective data collection methods.*

Response: Rangelands were characterized across the entire ICBEMP area. Since BLM ecological site inventory data were not available for much of the rangeland area in the area, those data could not be

the basis for characterizing rangelands. In addition, the BLM ecological site inventory data and plant association classification system represent fine-scale classifications that are too detailed for broad-scale analysis. However, BLM field experts (and their knowledge of the ecological site inventory data) were used in developing the more generalized, broad-scale vegetation classification and models.

Comment: *The Supplemental Draft EIS uses a study of the timber industry which is based on poor data and erroneous conclusions.*

Some information about the timber industry came from the 1993 Resource Planning Act timber assessment (Haynes et al. 1995) and the Resource Planning Act databases maintained for the timber assessment. Other sources included the Forest Service's cut and sold reports (for price and harvest information) and harvest reports from state natural resource agencies. A book by T.M. Power (2000), *The Economic Impact of Preserving Washington's Roadless National Forests* (report prepared for Wild Washington, University of Montana, Missoula, Montana) was used as one example of another interpretation of the evolution of the timber industry and its relationship to communities and economies. University of Idaho studies were another source used in the underlying assessments.

Comment: *The Science Advisory Group analysis should not assume that low-impact timber harvest methods produce soil disturbance levels similar to those considered typical of natural systems without data to substantiate this assumption. The Science Advisory Group analysis also incorrectly assumes that soil disturbance will decrease, stay the same, or increase by only a small amount if the amounts of restoration harvest, thinning, and prescribed fire increase by 2 to 10 times in restoration and maintenance areas of the high restoration priority subbasins.*

Response: The soil disturbance model used for the Supplemental Draft EIS was an integrated model that used all management activities, ecosystem vulnerability, and net and cumulative areas as soil disturbance input variables. There were no assumptions relative to soil disturbance decrease or increase relative to effects of the activities. The Science Advisory Group made no assumptions about soil disturbance associated with different harvest methods. The Science group did address cost differences between harvest methods and suggested that forwarder systems offer opportunities to lower costs of restoration activities. Outcomes were predicted based on the combined effects of the input variables. A key factor influencing the lack of increase in soil disturbance in response to the 2 to 10 times increase in area was the Supplemental Draft EIS direction that minimized mechanical soil impacts and concentrated restoration to less vulnerable watersheds in space and through time.

Comment: *The Supplemental Draft EIS underestimates the amount of land that will be included in Riparian Conservation Areas (RCAs).*

Response: The values displayed for Riparian Conservation Areas are intended to provide a relative comparison among the alternatives at the broad-scale. The mapping and preliminary identification of RCAs was completed using broad-scale stream miles data in a Geographic Information System (GIS), which tends to under-represent actual stream miles. More accurate delineation of RCAs will occur during the step-down process, when the broad-scale information is refined based on the appropriate ecological and geomorphic site characteristics.

Comment: *The Supplemental Draft EIS should use the Nature Conservancy/Federal Geographic Data Standard Committee/Society of American Foresters structure classification to model terrestrial species/vegetation associations and compare the results with the model that was used in the Supplemental Draft EIS.*

Response: The Supplemental Draft EIS process was begun substantially before the Federal Geographic Data Committee developed a national vegetation classification standard. As a result, large investments had already been made in vegetation data when the committee standard was adopted. In addition, the vegetation classes used in the Supplemental Draft EIS effects analysis can be easily cross-walked with the committee standard. The Society of American Foresters and Society of Range Management cover type classifications were available and used as a base for that classification, as well as the Nature Conservancy classification. However, neither was comprehensive for all vegetation types in the basin at that time. Because of the broad-scale nature of the classification, the translation or cross-walk would not have had a substantial effect on results because the underlying vegetation communities would not change even if the name applied to them did change. All project data have been converted to the official committee metadata formats.

Comment: *The method(s) and assumptions used to analyze expected effects on peak flows and bedload movements should be described in the Supplemental Draft EIS. If models were used, the Supplemental Draft EIS should disclose whether they were calibrated for the project area and ground-truthed.*

Response: As stated in Chapter 4 of the Final EIS, the estimated effects on hydrologic functions were derived from both quantitative data and qualitative assumptions. Descriptions of the models applied and the inherent assumptions that accompany the use of models when determining broad-scale findings are included in the Evaluation of the Alternatives prepared by the Science Advisory Group (SAG).

Comment: *The Supplemental Draft EIS does not discuss the failure of best management practices to provide protection to watersheds and water quality in the ICBEMP area.*

Response: Evaluation of the effectiveness of BMPs is beyond the scope of this project. Numerous scientific studies have been completed on the effectiveness of BMPs, specifically those related to forest practices (Seyedbagheri 1996).

Responsibilities for protecting water quality are addressed in several sections of the Clean Water Act, including Sections 303, 313, and 319. Specifically, Section 319 (Nonpoint Source Management Programs) requires states to develop a report that describes a process for identifying best management practices to reduce nonpoint sources to the maximum extent practicable, and a state management plan to effect such control. The development and implementation of best management practices (BMPs) is a primary mechanism through which the federal land management agencies work with states to protect and maintain water quality on public lands. BMPs are methods, measures, or practices selected by an agency to meet its nonpoint source control needs. BMPs include but are not limited to structural and nonstructural controls and operation and maintenance procedures. BMPs have been developed by federal land management agencies for application at the national, regional, and local level. BMPs are identified and developed through the land use planning process and their use is generally guided by various memoranda of understanding between state and federal agencies.

If waterbodies do not meet water quality standards even with implementation of existing management measures (including BMPs), then the waterbody is listed as impaired under Section 303(d) of the Clean Water Act. Application of the Forest Service and Bureau of Land Management (BLM) Protocol for Addressing Clean Water Act Section 303(d) Listed Waters, which was adopted for the project area, is expected to provide reasonable assurance that listed waters are addressed in a consistent manner at an appropriate scale and level of technical rigor. Because of the broad-scale nature of the project, the efficacy of existing BMPs is best addressed through application of the step-down process and implementation of the 303(d) Protocol.

Comment: *The Supplemental Draft EIS does not adequately analyze cumulative effects on markets for recycled wood products or alternative fiber substitutes. It also does not adequately assess the value of non-timber social and economic uses of the federal lands such as habitat, heritage resources, air quality, and floodplains.*

Response: While the Supplemental Draft EIS did not explicitly address the impacts of increased recycling and alternative products, these are considered in the Resource Planning Act timber assessment, which was used as the background material on past, present, and future trends in forest products markets.

Comment: *The Supplemental Draft EIS does not sufficiently analyze the costs of the alternatives, nor clearly explain the funding assumptions that were used for each and why.*

Response: The Supplemental Draft EIS explains budgeting and funding assumptions in Chapter 4 (both as assumptions for budgeting and in the Analysis of Implementation Costs and Outputs section) and identifies comparison of outputs at variable funding levels. It also explains that the strategies of maintenance and restoration can be achieved at variable funding levels, and the rates of restoration can be achieved quicker with additional funding. In addition, the Science Advisory Group (SAG) made assumptions on funding as it relates to the nature and types of prescriptions that will cause changes in the landscape as a result of the management direction. These assumptions are described in Appendix 16, Science Advisory Group Assumptions for Modeling the Supplemental Draft EIS Alternatives.

Comment: *The use of a 100-year planning horizon is inappropriate for this decision-making process.*

Response: The Science Advisory Group used a 100-year time frame for long-term projections of ecological effects. Many of the important ecological effects across the project area are cumulative and take years or decades to occur. This does not mean that the Supplemental Draft EIS alternatives are expected to remain in effect for 100 years, but it does mean that the decision makers considered potential long-term, broad-scale effects of their decisions. In addition, the primary use of the 100-year outcome in comparison to the current condition is to provide a relative trend of up, down, or stable, which is an important broad-scale measure.

Comment: *The Supplemental Draft EIS should use the "coarse filter" approach for identifying and conserving representative plant communities.*

Response: The Supplemental Draft EIS takes a coarse- filter approach to conserving plant communities by using broad-scale aggregates of potential vegetation types, cover types, and structural stages to represent fine-scale plant communities. Fine-filter plant community analyses and information on individual plant communities at fine scales are part of the step-down process. Some ecologists define "coarse filter approaches" as those involving reserves and corridors. The Supplemental Draft EIS considered alternatives that included reserve and corridor approaches (Draft EISs, Alternative 7). In addition, the Supplemental Draft EIS addresses "natural areas" as all types of designations managed for natural processes, including research natural areas and wilderness areas.

Comment: *The economic modeling in the Supplemental Draft EIS does not address impacts to all the multiple uses of the public lands, such as energy and mineral exploration and development, or impacts to employment in the recreation sector.*

Response: These trends were discussed in the underlying socio-economic assessment. The Science Advisory Group did not address recreation because no changes were forecast in the recreation opportunity spectrum classifications and no specific reductions in roads were forecasted at the broad scale. The minerals issue involves accessibility; without projected changes in accessibility, little can be said from a science perspective at the broad scale. Recreation and mineral issues will be more appropriately dealt with during the step-down analysis and planning processes that will occur at finer scales.

Comment: *The Supplemental Draft EIS overestimates the amount of forest that will progress to the later structural stages because the model does not take into account mortality resulting from the lack of fire to reduce stand competition (such as, control overstocking).*

Response: The models used to project effects of Supplemental Draft EIS alternatives by the Science Advisory Group explicitly considered fire, fire suppression, insect and disease tree mortality, stress mortality, and their effects on plant communities (including late successional forests). These findings are documented in the Landscape Effects of the Supplemental Draft EIS effects evaluation (Quigley et al. 2000) and in the *Scientific Assessment* (Quigley and Arbelbide 1997). The models were validated using the forest vegetation simulator model. Much of the increase in later structural stages is coming from succession of mid seral stands (that were early seral following the fires of the late1800s and early 1900s) into late seral. Whether or not those projections prove sufficiently accurate in the future is an important topic for effectiveness monitoring.

Comment: *The air quality modeling in the Supplemental Draft EIS is not extensive enough to reliably predict compliance with the national ambient air quality standards from a 16-fold increase in prescribed fire. More extensive modeling and analysis must be conducted before conclusions can be made about impacts to air quality.*

Response: Watershed scale scenarios to assess compliance with national ambient air quality standards were evaluated for typical prescribed fire conditions. These scenarios indicated that compliance could be achieved irrespective of the amount of prescribed fire as long as there was adequate flexibility in conducting mechanical pre-treatment of fuels and in timing in relation to desirable weather and fuel moisture conditions. Broad-scale modeling of total particulates was conducted that assessed the trade-off of not using prescribed fire and risking summer wildfires. This modeling indicated that the risk to air quality was much higher from wildfires than increased use of prescribed fire.

A group of air quality experts, including Environmental Protection Agency specialists, evaluated the ICBEMP assessment and Supplemental Draft EIS

effects analysis. Specialists agreed that the benefits of conducting additional fine or broad-scale model runs for the Final EIS would not provide substantial additional ability to evaluate effects on air quality standards, given the lack of activity-specific location and timing information. This activity-specific location and timing information will not be available until after implementation of the Final EIS, as determined through Subbasin Review, Ecosystem Analysis at the Watershed Scale, and project design and planning. In order to fully resolve the issue there was agreement to include appropriate objectives and supporting standards in the Final EIS and Record of Decision to achieve such enhanced modeling capability and to provide finer-scale effects assessments as part of the step-down process and/or individual land management plan revision/amendment process.

Incomplete, Unavailable, or New Information

Comment: *There is a lack of a final transition strategy, lack of a final guidebook for conducting Subbasin Review, and a lack of a dispute resolution process for interagency collaboration in the step-down process.*

Response: The strategy to transition from current management to the management direction in the Final EIS is described in Appendix 10 of the Final EIS and Supplemental Draft EIS.
The Subbasin Review Guide, although not labeled "final", has been distributed for use to field offices throughout the project area. It is a dynamic guide that is intended to be refined as those using it make suggestions for improvement.

Disputes that arise during interagency collaboration in the step-down process will be resolved by whatever technique appears most appropriate to the specific dispute.

Comment: *The Final EIS should: (1) indicate the statutory and regulatory basis justifying/supporting the elimination of the biological opinion requirements for inclusion in Alternatives S2 and S3; (2)provide an effects analysis and rationale for eliminating biological opinion requirements regarding "objectives for monitoring plans in accordance with PACFISH and INFISH for implementation, effectiveness, and validation monitoring for logging, grazing mining and recreation, as required in the bull trout biological opinion; (3) indicate the effects and rationale for eliminating the "review, modify, and implement annual operating instructions or term grazing permits to meet appropriate PACFISH or INFISH objectives; (4) indicate on what basis, scientific or otherwise, elimination of "road densities of less than 1.0 mile per square mile" (U.S. Fish and Wildlife Service Biological Opinion) from Alternatives S2 and S3 was determined to be valid.*

Response: Alternative S1 (continuation of present management) in the Supplemental Draft EIS included the requirements described in the Biological Opinions on land use plans as amended by PACFISH and INFISH because that portrays current management. It has been the intent of the project since publication of the Notice of Intent in 1994, to replace the interim management stategies of PACFISH and INFISH with long-term management direction. The biological opinions related to the interim strategies were not part of Alternatives S2 and S3 because those strategies would be replaced by the proposed decision (Alternative S2). The proposed decision does not alter the Endangered Species Act and its requirement to seek a biological opinion when appropriate. A new biological opinion will be issued with the Record of Decision.

Comment: *Surveys to determine snag abundance require very large sample sizes relative to other general vegetation surveys. This was not recognized until relatively recently, so most past surveys conducted to determine natural snag abundance have therefore grossly underestimated the true abundance of snags. This has lead the Forest Service to underestimate the number of snags necessary to protect species. This new information must be disclosed and documented in a EIS, and it requires a forest plan amendment.*

Response: The interim standard densities for snags depicted in Appendix 12 of the Supplemental Draft EIS were derived following a detailed and extensive review of the literature and a series of discussions with experts. (See Appendix 12, Supplemental Draft EIS for literature citations.) These interim standards become part of each Forest Service and BLM land use plan in the project area through plan amendment with the signing of the ICBEMP Record of Decision. The interim values are intended to be used in designing field projects. A prototype for refinement of these interim standards in response to new and more site-specific information is included in the appendix.

Without completed consultation for each alternative, it is impossible to determine the social, economic, and environmental effects of the alternatives or to get an adequate comparison between the alternatives.

Response: The Supplemental Draft EIS depicts the social, economic, and environmental effects of three alternatives and compares the three alternatives based upon estimated effects. The intent is to complete consultation under Section 7 of the Endangered Species Act for the proposed decision and include the results of that consultation in the Record of Decision (ROD) for the project.

Comment: *Critical items will not be completed until after the ROD, including: EAWS, screening process, soil productivity and restoration programs, recommendations for coarse woody debris, mature and old forest definitions and criteria, management strategies for other species, habitat mapping for recovery plans, assessment of identified places of value to American Indians, or habitat effectiveness rating. In the absence of these documents, the public is not being afforded an opportunity to fully review and knowingly comment on the proposed alternatives or actions.*

Response: A generic definition for old-growth forests is in Appendix 17a of the Supplemental Draft EIS. Recommendations for coarse woody debris are in Appendix 12. Ecosystem Analysis at the Watershed Scale (EAWS) is part of the step-down process described in Chapter 3 of the Supplemental Draft EIS and is intended to be part of implementation following the Record of Decisoin (ROD). The remaining listed items do not lend themselves to broad-scale direction and analysis. The intent is to develop fine-scale analysis as fine-scale projects are analyzed during implementation through the step-down process.

EIS Document - General

Outcome-based vs. Prescriptive Direction

Comment: *Compare and contrast outcome-based and prescriptive approaches to management direction.*

Response: Outcome-based management direction, such as that described in the Final EIS, relies largely upon describing the desired result of management and suggesting management processes and actions that are expected to achieve that result. It is appropriate at the broad scale (for example, the interior Columbia River Basin), and it gives more discretion to local managers to analyze local conditions and determine what specific management actions are needed to achieve desired outcomes. Prescriptive management direction relies more upon describing actions that must, or may not, be taken. It is more appropriate at the fine scale (a national forest or BLM district) where resource conditions are less diverse and results of a given action are more predictable.

Chapter 2, Affected Environment

Comment: *The Supplemental Draft EIS does not adequately define the project area. This leads to confusion: some resource characterizations in the Affected Environment chapter appear to vary among federal lands only, others are considered within the Supplemental Draft EIS area border, and occasionally the description includes all western states.*

Response: The project area is defined in Chapter 1 of the Supplemental Draft EIS; Maps 1-1 and 1-2 portray the project area graphically. The management strategy in the proposed decision applies only to the Forest Service- and BLM-administered lands within the project area. Descriptions of the affected environment, on the other hand, included all lands within the project area.

Comment: *Include a discussion of the 1996 severe ice storm that led to an infestation of Douglas-fir bark beetle in portions of Idaho and Washington.*

Response: This particular ice storm is too site-specific to be addressed at the project's broad scale. However, the effect of insects and disease on ecosystem disturbance has been identified in Chapter 2, pages 65 and 69, for example, for each major forest type.

Comment: *There is a need to discuss the approximately 3,400 wild horses and burros which graze year-round in the eastern Oregon and southern Idaho BLM districts.*

Response: BLM land use plans provide the appropriate level of decision for wild horse management. Wild horses are not considered a broad-scale issue needing to be addressed in this project. Localized impacts of these animals are considered during analyses at the land use plan and project levels.

Comment: *The agencies judge the health and integrity of ecosystems by how much they deviate from the historical range of variability. However, historical range of variability depends entirely on what time period researchers assign*

to it and how they interpret available date to reconstruct it. Such an analysis as included in the Supplemental Draft EIS is arbitrary and capricious.

Response: The historical range of variability is a scientific concept that was used as a reference point in this project as described in Chapter 2 of the Supplemental Draft EIS (page 11). The assumptions and scientific underpinnings of this concept are disclosed and identified in the Scientific Assessment. The use of the concept in the Supplemental Draft EIS has been reviewed and found to be consistent with the existing science.

Comment: *There is little historical evidence of the widely spaced forests that current Forest Service timber sales are trying to attain. We believe the bias toward logging has corrupted the Supplemental Draft EIS and that an honest appraisal of stand succession, historical process, and desired future condition must be made.*

Response: Anecdotal information sometimes runs counter to the existing scientific literature. The direction in the proposed decision has been reviewed and found to be consistent with the best available science.

Chapter 3, Alternatives

Alternative S1, No Action

Comment: *There is no way to justify using existing land management plans adjusted for interim policies and biological opinions as your baseline. The interim policies were just that—interim. Having three different "no-action" alternatives is confusing. The no-action alternative should describe current direction.*

Response: The no-action alternative is defined as "continuation of current management." Alternative S1 describes and represents the relevant direction from the 62 land use plans currently in place; these plans constitute the current direction in the project area. Since the interim policies of PACFISH, INFISH, and the Eastside Screens and their associated biological opinions have been the current management for the past seven years, they were used to define current management in the no-action alternative (Alternative S1) in the Final EIS.

Objectives, Standards, and Guidelines

Comment: *The abundance of objectives and guidelines and paucity of standards leaves the reader with a vague sense that the plan asks managers to pursue worthy goals, while considering various matters, but with almost no sense of what will actually happen, when or where. Guidance should be converted to enforceable standards that protect these ecosystems.*

The Supplemental Draft EIS weakens opportunities for citizen oversight and enforcement of baseline environmental standards.

Response: Outcome-based direction, such as that described in the Final EIS, relies largely on describing the desired result of management and suggesting management processes and actions (through objectives and guidelines) that are expected to achieve that result. This results in fewer standards, which is appropriate at the broad scale, because a standard that is appropriate at the national forest or BLM district level may not be applicable across an area as large as the project area. Prescriptive direction, which contains more standards or required actions, is more appropriate at the fine scale, where resource conditions are less diverse and results of a given action are more predictable.

The proposed decision requires collaboration with state, federal, and tribal governments and officials as well as citizen advisory groups such as the RACs and PACs. The Final EIS retains all current opportunities for public involvement in the implementation of the decision.

Comment: *Objective B-O7 calls for promoting "healthy, productive, and diverse plant and animal communities"—yet there are no agreed-upon standards for determining when a plant or animal community is healthy and when it is not.*

Response: Rangeland health and forest health are defined in the glossary of the Supplemental Draft EIS.

Comment: *There is a need to clarify the legal hierarchy for goals, objectives/outcomes, standards, guidelines, and management intent.*

Response: The hierarchy of management direction is built into the architecture of the strategies and is explained in Chapter 3, page 39, of the Supplemental Draft EIS.

Range of Alternatives

Comment: *The range of alternatives included in the Supplemental Draft EIS is far too narrow:*
For some respondents:

- *It does not include a viable conservation alternative.*
- *There is no true restoration alternative that limits logging, mining, grazing, and other damaging activities on public lands.*
- *There should be a no-commercial-logging alternative.*
- *There should be an alternative the emphasizes protection and restoration of public resources that includes: a prohibition on road construction, reduction in road density, reductions in logging, protection of riparian areas and streams, and enforceable, accountable, and measurable standards. Restoration without logging and roadbuilding should be proposed and analyzed.*

For other respondents:

- *There should be an alterative that increases the amount of commodity uses such as timber, wood fiber, livestock forage, and recreation.*
- *Include an alternative that emphasizes aggressive restoration.*

Response: The alternatives in the Supplemental Draft EIS and the 1997 Draft EISs have varied combinations of protection, restoration, and continuation of the existing land use plans. The range of human uses and commodity outputs are disclosed in Chapter 4 and in the Report to Congress that was released with the Supplemental Draft EIS. Description as to why a "conservation" alternative was not developed is explained in the Introduction of Chapter 3 in the Supplemental Draft EIS.

A discussion of alternatives considered but not fully analyzed, and a discussion of suggested combinations of alternatives from the draft EIS are found in the Supplemental Draft EIS, Chapter 3, pages 3 and 4. Only those alternatives that could be expected to meet the purpose and need for developing the ecosystem management strategy (see the Supplemental Draft EIS, Chapter 1, pages 9-11) were fully developed and analyzed.

Chapter 4, Environmental Consequences

Comment: *The project defers specific analyses and estimates until after a decision is made. This means rules will be enacted before anyone knows many of the effects on society, the economy, or the environment.*

Response: The alternatives have been described and analyzed at the scale of the interior Columbia River Basin, encompassing approximately 63 million acres of agency-administered lands. It is not feasible or appropriate to make fine-scale amendments to land use plans using this broad-scale information. However, subsequent activity-level decisions made to implement the direction will be subjected to site-specific analysis and public involvement.

Comment: *Alternative S2 is only compared to Alternative S1 and S3. There should be a comparison for all 9 other alternatives.*

Response: The scope of the project was narrowed between the publication of the Draft EISs and the Supplemental Draft EIS, making it difficult to compare directly the alternatives described in those two documents. The alternative management strategies described in the Supplemental Draft EIS focus on issues that are best addressed at the basin-wide scale.

Comment: *The Final EIS should indicate what analysis was performed to support the determination of effects on listed species and anticipated trends toward improvements per alternative. Indicate whether the determination of effects on listed species and anticipated trends toward improvements per alternative are the result of consultation under Section 7 of the Endangered Species Act. Provide documentation showing outcomes of ESA Section 7 consultation and concurrence on effects determination for the preferred alternative. Indicate on what basis determination of effects on listed species and anticipated trends towards improvements for Alternative S1 was made in the absence of incorporation of the Roadless Area Conservation EIS.*

Response: Analysis of the alternatives was performed by the Science Advisory Group and the EIS Team and documented in Chapter 4 of the Supplemental Draft EIS and the Final EIS. Consultation on the proposed decision under Section 7 of the Endangered Species Act will be completed before the Record of Decision is signed, and biological opinions from the National Marine Fisheries Service and U. S. Fish and Wildlife Service will be completed at that time.

The Science Advisory Group assumed that the Roadless Area Conservation Record of Decision will slow the growth of new roads on Forest Service-administered lands in the short and long terms. The

SAG assumptions are presented in the Supplemental Draft EIS, Appendix 16, page 16-5.

Comment: *The Supplemental Draft EIS does not provide sufficient knowledge of cumulative effects to assure timely and effective consultation with regulatory agencies and prevent legal challenges to individual projects during plan implementation.*

Response: Cumulative effects of the alternatives are portrayed in Chapter 4 of the Supplemental Draft EIS, pages 81-110 (for terrestrial species) and pages 122-141 (for effects on native fish and other aquatic species).

Comment: *There are no strategies for cumulative effect analyses at multiple levels.*

Response: The cumulative effects analysis at the basin-wide level is documented throughout Chapter 4 of the Supplemental Draft EIS. Effects of implementation at site-specific levels would be captured through effectiveness monitoring. The intent is for a monitoring strategy to be developed through a collaborative, intergovernmental, interagency, and interdisciplinary process, to be designed to accommodate many geographic levels. Appendix 10 provides a discussion of the development of a monitoring strategy.

Collaboration and Public Involvement

Adequacy of Public Involvement

Comment: *The Supplemental Draft EIS did not include the coordination with individual county governments which are engaged in land use planning as required by Congress.*

Response: During preparation of the both Supplemental Draft EIS and the Final EIS, the EIS Team used a collaborative approach with elected officials from county, state, and tribal governments (along with other federal and state agency staff) to develop and analyze the ecosystem-based strategies. The Public Involvement section of this appendix contains a list of those contacted. The Eastside Ecosystems Coalition of Counties (EECC) facilitated the involvement of counties, assuring that county interests and input were considered by the Science Advisory Group and the EIS Team. This coalition participated actively throughout the process. Project officials also met on numerous occasions with state associations of counties and individual boards of county commissioners on request. Many county representatives submitted written comments on the Supplemental Draft EIS; their comments were considered in the development of the Final EIS.

Comment: *We recognize and take exception with the fact that many of the key elements in the new planning regulations are already reflected in the Supplemental Draft EIS without the benefit of public input.*

Response: The guidance and direction in the Supplemental Draft EIS, and the Final EIS were based only on the BLM and Forest Service land use planning regulations (36 CFR 219 for the Forest Service and 43 CFR 1600 for BLM) current at the time.

Comment: *The public comment period on the Supplemental Draft EIS should be extended.*

Response: The comments that requested an extension of the the public comment period for the Supplemental Draft EIS were considered. However, based on the desire to complete the process expeditiously, the decision was made to stay with the 90-day public comment period for the Supplemental Draft EIS, which ended on July 6, 2000.

Comment: *We cannot understand the National Environmental Policy Act process as it relates to any plan amendments that may result from this strategy. Please clarify the next steps in the public involvement plan, with comment opportunities identified as to length and availability of documents.*

Response: The Record of Decision will amend 62 BLM and Forest Service land use plans as identified in Chapter 1 of the Supplemental Draft EIS. The extensive public involvement efforts associated with this project since 1994 have provided numerous, often lengthy opportunities for public input on the amendments that will result from the ICBEMP Record of Decision. A 30-day period will be available following publication of the proposed decision to afford additional opportunity for public input. When the plans are ready for revision, further amendment, or updates, a separate NEPA process will be initiated, which will include a planning schedule and public notification process that will identify the timing and opportunities for public involvement. This schedule for revisions, amendments or updates is not available at this time, but can be obtained from individual BLM and Forest Service offices.

Collaboration and Intergovernmental Coordination

Comment: *Nowhere in the document could I find a standard or objective requiring intergovernmental cooperation between USFS and BLM and state fish and wildlife management agency managers.*

Response: The project's Executive Steering Committee defined collaboration as the "relationship among the five federal agencies involved with the project (Forest Service, Bureau of Land Management, National Marine Fisheries Service, U.S. Fish and Wildlife Service and Environmental Protection Agency) and other federal, state, tribal and local government officials. The intent throughout the document is that states (including state fish and wildlife agencies), tribes, and local governments are intergovernmental partners with federal land managers. One example of an objective and a standard requiring intergovernmental cooperation is Objective B-O59 and Standard B-S57, in the base-level Social-Economic-Tribal section of Chapter 3. In other direction (mid-scale planning, Subbasin Review, monitoring, integrated weed management, step-down) there is frequent reference to working with state, tribal, and local governments.

Comment: *The role of RACs/PACs in community collaboration and consensus building, Subbasin Reviews, Ecosystem Analysis at the Watershed Scale, and/or project prioritization is not clear.*

Response: Resource Advisory Councils and Province Advisory Committees (RACs/PACs) are officially designated citizens advisory groups that have the legal authority to advise federal land managers on land use issues. This legal authority (authorized under the Federal Advisory Committee Act [FACA]) gives these groups specific access to the federal decision-making processes. RACs/PACs are intended to be partners with the land management agencies in the process of collaboration on broad-scale plans, land use plans, Subbasin Review, and Ecosystem Analysis at the Watershed Scale efforts.

Comment: *The selected alternative needs to include clear management direction for dealing with tradeoffs and consequences of conflicting management direction, and for resolving conflict during interagency collaboration.*

Response: The Final EIS identifies criteria for an organization that will be created to implement the ROD. This organization will be chartered to identify conflict resolution techniques and procedures to help resolve issues of interpretation of science and management direction.

Comment: *There needs to be a description of the mechanisms that will be used to expand the role of tribal, state, and county government. Without this description of how increased cooperation will actually function, various units of government cannot accurately determine the potential effects of the Supplemental Draft EIS. There is a need for a statement of legal objective and authority for the proposed action.*

Response: Through direction for intergovernmental collaboration, federal land managers are committed to working more closely with state, tribal and local governments so that their views of land management can be addressed to the extent possible by federal law. No expansion of state, tribal, or county government roles is proposed, but rather more effective uses of existing authorities. Among the mechanisms possible for improving intergovernmental collaboration would the signing of memoranda of understanding (MOUs) or equivalent documents to describe specific procedures for collaborative efforts (Standard B-S57). The definition of collaboration has been clarified in the Final EIS direction and glossary; the glossary describes in more detail various approaches to collaboration intended by the direction

Accessibility to Science

Comment: *The good science developed during the ICBEMP analysis should be provided to local forest managers to review and include in their land use plan revisions as local, site-specific conditions warrant.*

Response: The published *Scientific Assessment* and other related science reports are available to local BLM and Forest Service managers and are being used as the most current scientific information available. BLM and Forest Service managers are required by National Environmental Policy Act to use the most current scientific information available to make resource management decisions.

Implementation

Accountability and Oversight

Comment: *The Supplemental Draft EIS contains no assurances that the conservation agreements and strategies*

intended to preclude further listings of threatened or endangered species will actually be implemented on the ground.

Response: Standard B-S55 specifically addresses the issue of conservation agreements and strategies. It requires that all management activities be designed and implemented to be consistent with approved recovery plans, conservation strategies, and other appropriate reports.

In addition, there are many check-points within the implementation process to assure that agreements and strategies are implemented. For example, all projects must comply with the National Environmental Policy Act (NEPA). Decisions that result from the NEPA process must reflect compliance with basin-wide strategies; otherwise the decision would be subject to successful appeal or court action. In addition, prior to the final decision, interagency, tribal, and public review will occur, which adds assurance that the proposed action complies with conservation agreements and strategies. Step-down processes (Ecosystem Analysis at the Watershed Scale and Subbasin Review) and the biological evaluation and opinion processes, in areas with sensitive species, will also assure that the proper recovery plan is applied. These processes are subject to interagency, tribal, and public scrutiny. Finally, the ICBEMP Implementation Monitoring Plan calls for review of projects and activities in the basin on a continuing basis to determine if the management direction is being implemented as intended.

Comment: *The agencies do not have the staffing or budgetary or technical capability to implement and evaluate the objectives, standards, and guidelines in the Supplemental Draft EIS. This makes the proposed action infeasible and in violation of the National Environmental Policy Act.*

Response: The strategies in the proposed action will have budget consequences, as all land use plans do. These will be identified by land managers in the normal course of budget development, and ultimately the Congress will determine what aspects of the strategies may get additional funding. In the interim, existing agency budgets will focus on the high priority workload, consistent with appropriations law and national direction.

Comment: *The EIS should include clear direction on how to conduct more up-front collaboration and consensus building, and clarify the meaning of the terms collaboration, consultation, and coordination.*

Response: The Final EIS provides additional detail about the levels of collaboration and who would be involved, and it clarifies intergovernmental and interagency collaboration. The definition of collaboration was also clarified in the glossary.

Comment: *Clarify whether the direction to refine and ground-truth land use plan-level maps of unstable and potentially unstable lands during site-specific National Environmental Policy Act (NEPA) analysis and planning (Standard B-S17) applies to all projects or only those projects where potential effects to unstable and potentially unstable lands could occur.*

Response: The intent is to do land use plan maps first, and project maps second. If there is a potential effect of a proposed project due to unstable and/or potentially unstable lands, this risk would be addressed during NEPA analysis.

Comment: *Some commentors feel that there should be a transition phase after the Record of Decision is signed, and that the implementation process should be defined in detail in the Final EIS. Others want implementation to begin immediately, without a step-down process or transition phase. Still others want the direction in Alternative S1 applied until the step-down process (Subbasin Reviews and Ecosystem Analysis at the Watershed Scale) is completed.*

Response: The transition phase is an important topic that is addressed in the proposed decision and will be covered in the Record of Decision (ROD). Transition is not a new concept to land use plans, and a strategy will be provided to assure that there is no gap in the necessary protection for listed species and other areas of concern.

Comment: *The Record of Decision should encompass all the direction associated with the chosen alternative to help facilitate clear, efficient, and effective project implementation. The Record of Decision should also reference other relevant scientific documents to facilitate discussion and interpretations of standards in relation to the science upon which they are based rather than just the language of the standards themselves.*

Response: The Record of Decision (ROD) is the decision-making document that will amend 62 BLM and Forest Service land use plans with direction analyzed in the Final EIS. The ROD will include the complete package of direction selected from the Final EIS along with supporting information and rationale for the decision. References to scientific and other materials are extensively provided in the EIS, with full publication information provided in the Literature Cited section. Any references cited in the Record of Decision will be also be listed in a Literature Cited section attached to the ROD. Information about the scientific reports and publications developed by the ICBEMP science teams can be found on the ICBEMP Internet web page (www.icbemp.gov). Copies may be ordered from: Publications Distribution, PNW Research Station, 333 S.W. 1st Ave., P. O. Box 3890, Portland, OR 97208-3890 (telephone 503-808-2125). Some of the scientific publications have been published on the following website: www.fs.fed.us/pnw/int_col.htm.

Comment: *The EIS should consider the feasibility of implementing the selected alternative.*

Response: The alternatives were evaluated based on their feasibility. The action alternatives were determined to be feasible at future and predicted levels of funding. In addition, the alternatives are able to accommodate a range of funding levels that may result from future appropriations.

Organization Structure

Comment: *What entity, how many people, and at what cost will the broad-scale management direction be implemented.*

Response: Criteria for implementing the proposed decision are listed in Appendix 10 of the Final EIS. The intent is to rely on existing personnel to the extent possible. The estimated costs of implementation are addressed in Chapter 4 of the Supplemental Draft EIS, pages 204-212.

Comment: *The Supplemental Draft EIS does not provide definitive direction as to how the U.S. Fish and Wildlife Service and National Marine Fisheries Service will appropriately address threatened and endangered species within the context of the EIS.*

Response: The process by which the U.S. Fish and Wildlife Service and the National Marine Fisheries Service address threatened and endangered species is mandated by the Endangered Species Act. Direction in the Final EIS does not alter existing laws, nor does it direct actions of the U.S. Fish and Wildlife Service or the National Marine Fisheries Service.

Timing

Comment: *Cancel the implementation phase of the document and work with the concepts for 5-10 years to determine what the real effects will be.*

Response: BLM and Forest Service planning regulations require development of land use plans meeting specific requirements and subject to compliance with the National Environmental Policy Act, the Endangered Species Act, and other pertinent laws and regulations. As such, analyses of potential effects must be conducted prior to making final planning decisions. An implementation phase is necessary to put new processes into place, to incorporate the decisions into new management proposals, and to bring ongoing agency programs into compliance with the new direction. The monitoring and adaptive management elements of the plan will evaluate the outcomes over time and identify changes needed to meet desired conditions.

Comment: *The project has dragged on for too long, it is time to move ahead and implement it.*

Response: Implementation will immediately follow signing of the Record of Decision upon resolution of any protests received on the proposed decision.

Comment: *There are too many federal, natural resource initiatives currently being proposed. A decision on ICBEMP should be delayed pending completion of these other initiatives.*

Response: The project is being coordinated with these other initiatives to ensure a reasonable level of compatibility where there is potential overlap. Completion of the project would facilitate analysis and design of management strategies under these and future initiatives.

Comment: *A final decision should be delayed until the next administration has an opportunity to evaluate management options.*

Response: The decision to amend land use plans through the ICBEMP Record of Decision is a plan-

ning decision delegated, through each agency's planning regulations, to the Forest Service and BLM regional executives.

Priorities and Conflicts

Comment: *The Agricultural Lands Potential Vegetation Group (Map 2-6 in the Supplemental Draft EIS) should not be characterized as having a lethal current fire regime as is shown on Map 2-8 in the Supplemental Draft EIS.*

Response: Much of the "agricultural lands" reflected are included in cheatgrass rangelands and are considered "lethal" current fire regimes.

Comment: *The EIS places the highest broad-scale priority for implementing Integrated Weed Management on existing and new populations of weeds in areas within A1, A2 subwatersheds, and T watersheds rated as high susceptibility to invasion by weeds. This standard should be modified to make it a higher priority to treat new invaders rather than existing weed populations in high susceptibility areas.*

Response: The direction of the proposed decision provides for restoration decisions to be made based on local priorities and broad-scale priorities. There will be situations where the most effective strategy is to take immediate action to prevent the spread of a particular invasive weed. In other situations a long-term and systematic strategy is needed to prevent the expansion of a variety of weeds. Both are important and essential to effective weed management. The criteria of A1 and A2 subwatersheds and T watersheds would identify areas where weed invasions are light, if they exist at all. With these conditions, the opportunity to control and possibly eradicate are high. Control and eradication of invasive weeds are key to maintaining high quality habitat (in the case of A1 subwatersheds and some cases of T watersheds) and recovering such habitats (in the case of A2 subwatersheds and some T watersheds), regardless of whether weeds are existing or new invaders.

Comment: *The objective to increase the geographic extent of interior ponderosa pine cover type in the 'stem exclusion closed canopy' structural stages (R-O17) appears to conflict with the objective for dry forest potential vegetation groups to create open stands where the natural disturbance regime maintained open forests of Douglas-fir/ponderosa pine (R-O29). Please clarify.*

Response: Two structural stages of interior ponderosa pine—both the 'stem exclusion closed canopy structural stage', and open stands where the natural disturbance regime maintained open forests of Douglas-fir/ ponderosa pine—are in short supply within the project area. The objectives are to increase both stages within the project area as a whole, recognizing that both stages cannot exist on the same acre. The step-down processes (Subbasin Review and Ecosystem Analysis at the Watershed Scale) will determine specifically where needs and opportunity for either structural stage of interior ponderosa pine exist.

Comment: *The standard that requires Ecosystem Analysis at the Watershed Scale (EAWS) to be conducted when there is a potential for adverse impacts except when the impacts are anticipated to be negligible, short term, and localized in scope (Standard B-S5), appears to conflict with Standard B-S7, which allows exemptions to the EAWS requirements only after Executive Steering Committee (ESC) approval. Please clarify whether ESC approval is required to waive the EAWS requirement if impacts are anticipated to be minimal.*

Response: In the Supplemental Draft EIS, Standard B-S5 provides for an automatic exemption from EAWS requirements if the anticipated impacts are negligible, short term, and localized. No ESC approval would be needed if impacts are anticipated to be minimal. The Final EIS expands the exemption to include limited situations where there is imminent threat or unacceptably high risk to scarce natural, cultural, or historical resources; human life; or property.

Standard B-S7 would allow for additional exemptions for certain other projects , but only after ESC review and approval. The Final EIS rationale statements for B-S5 and B-S7 provide further information.

Comment: *The EIS should contain more direction about how socio-economic considerations will be incorporated into the implementation of ecosystem-based standards, objectives, and guidelines.*

Response: Social and economic direction in the Final EIS is broad in nature, appropriate to the broad scale of this project. These issues will be addressed again in local land use plan revisions or amendments, and in local project-level NEPA analyses.

Comment: *The analysis of livestock effects is biased against livestock grazing because only zero to five percent of the surface area in a watershed can show livestock effects and be classified as low.*

Response: Scientific data show that the historical effects of livestock grazing have been a significant factor causing many of the vegetative changes in the project area over the past 100 years. Much of the direction contained within the EIS is focused on restoration of riparian areas where significant effects of livestock have occurred.

Comment: *The EIS should provide specific direction about how Record of Decision (ROD) implementation and effectiveness will be evaluated and how the results of these evaluations will be used.*

Response: Criteria to establish an implementation organization is provided in the Final EIS. Implementation considerations will be included in the Record of Decision. Separate implementation and effectiveness plans will be developed as referred to in the Final EIS.

Relationship to Laws and Other Plans

Relationship to Laws

Comment: *There is no legal basis for ecosystem management. The plan does not meet the statutory requirements of multiple use or planning (NFMA & FLPMA) which apply to the involved agencies.*

Response: An ecosystem-based management approach to land use planning and management is supported by various statutes such as the Forest Service Organic Act, the Multiple-Use Sustained-Yield Act, the Endangered Species Act (ESA), and the Federal Land Policy and Management Act (FLPMA). These statutes invest the agencies with broad discretion to rely on their expertise to manage lands in a manner deemed to best meet the purposes Congress has delineated. One such purpose is to provide for the long-term sustainability of forest and rangeland resources, including the species that inhabit them. Statutes such as the Forest and Rangeland Renewable Resources Planning Act (RPA), the National Forest Management Act (NFMA), and FLPMA —which outline various procedures to follow in federal land planning— also authorize the use of principles intrinsic to ecosystem-based management (for example, calling for planning to be interdisciplinary, coordinated among agencies, and based on the best available science). NFMA explicitly directs that diversity of plant and animal species be considered in planning. Moreover, ESA directs agencies to establish and implement a program to conserve fish, wildlife, and plants, including those listed as threatened or endangered. Finally, the National Environmental Policy Act (NEPA), while not imposing substantive duties on the agencies, recognizes "the interrelations of all components of the natural environment," "the critical importance of restoring and maintaining environmental quality," and "the responsibilities of each generation as trustee of the environment for succeeding generations." Further, the cumulative effects analysis required under NEPA's regulations supports a planning approach that incorporates an ecosystem perspective.

Comment: *No Clean Water Act criteria were built into the Supplemental Draft EIS and it does not develop Total Maximum Daily Load (TMDLs).*

Response: The Clean Water Act (CWA) mandates the BLM and Forest Service to protect and restore the quality of public waters under their jurisdiction. Although the Environmental Protection Agency (EPA) has ultimate responsibility for administering the CWA, states and tribes have primary responsibility for implementing many of its provisions. Federal land managing agencies are designated by the states to assist in CWA implementation.

The broad scale of this project is not the appropriate scale for developing TMDLs. Base-level direction for the action alternatives calls for maintaining water quality and hydrologic processes necessary to support beneficial uses, including healthy riparian, aquatic, and wetland ecosystems. Associated standards require application of 303(d) protocols at watershed and subbasin scales. States have developed TMDL priorities and schedules on a watershed or subbasin scale while providing flexibility to complete finer-scale TMDLs within the schedule. The Forest Service and BLM have established a goal of addressing all 303(d) water bodies within a five-year period.

Comment: *It is not legally or morally sufficient to just "balance" the needs of threatened, endangered and proposed species with restoration objectives; under the Endangered Species Act (ESA), listed species must be protected from uplisting and their critical habitat protected. The National Forest Management Act (NFMA) also requires that viable populations of both native and non-native species be ensured.*

Response: The proposed decision in the Final EIS is designed to protect listed species and to prevent listing of candidate species. As described under the Species Viability and Persistence discussions in Chapter 4 of the Supplemental Draft EIS, the terrestrial and aquatic species effects analyses provide decision makers with the information they need to judge whether federal habitat management meets the viable populations requirements of the NFMA. The concern with restoration involves a weighing of the short-term risks associated with restoration activities against the long-term benefits to special status species from the needed restoration of their habitats. The Final EIS emphasizes minimizing this short-term risk and therefore places greater emphasis on conducting analyses prior to designing and approving management actions.

Comment: *The Supplemental Draft EIS does not to meet minimum requirements of the National Environmental Policy Act (NEPA). Local officials, interested publics, and individual citizens cannot determine the effects (including social and economic effects, changes to federal lands if ranchers end their operations as a result of reductions in Animal Unit Months [AUMs]), cost, or level of irrevocable commitment of resources from the EIS. If effects are impossible to identify, there can be no analysis and no informed comment by groups or individuals on how their interests might be affected. The prescriptions called for in the Supplemental Draft EIS make this a site-specific NEPA action and not a programmatic NEPA action.*

Response: The effects analysis in the Supplemental Draft EIS attempts to predict impacts on resources and users at a level commensurate with the broad-scale and more process-oriented nature of the decisions being made. The outcome-based design of the alternatives responds to the degree of variability across the basin and the commitment to avoid establishing "one-size-fits-all" land use prescriptions for all federal lands within the basin. Tthe social and economic analysis has been supplemented with current condition information at the community level, identifying and classifying communities according to their economic specialization and whether they are isolated or not isolated (ICBEMP 1998). This information, along with additional work on socio-economic resiliency at the county level, provided a way to include more discussion about possible effects of changing output and activity levels on rural and tribal isolated and economically-specialized communities, and on factors influencing socio-economic resiliency over the long run. The step-down process will be used to determine where broad-scale objectives apply on the ground and will provide opportunities for collaborative involvement to mutually establish priorities and recommendations for meeting broad-scale as well as local needs and objectives.

The outcome-based direction in the Final EIS responds to the basin-wide cumulative effects that could not be adequately addressed in individual land use plans. The step-down processes allow local managers to consider site-specific conditions when designing activities to meet broad-scale expected outcomes. As such, this type of direction is not considered site-specific in nature.

Comment: *The direction limits or prevents the decision-making process of local officials. We believe this violates the two-tier decision format identified in the National Forest Management Act (NFMA). The Forest Service illegally uses the ICBEMP strategy to circumvent the detailed requirements of forest planning. The EIS is not sufficiently site-specific to assess the effects of the management direction on timber harvest and other resources. The lack of specificity makes the estimate of resource effects legally inadequate.*

Response: NFMA's two-tier decision format allows for joint planning efforts and consolidation of land use plan amendments. The ICBEMP Record of Decision (ROD), will provide a vehicle for amending 62 Forest Service and BLM land use plans. The direction package will fully reside within those land use plans, as amended, and subsequent activities will be required to conform with those plans. Existing land use plan direction not amended by the ROD remains in effect; therefore, each plan remains intact. The broad-scale approach was necessary to address cumulative effects that are broader in scope than could be effectively addressed in individual planning efforts.

The level of detail in the effects analysis is appropriate to the broad-scale actions being analyzed in this project. The direction includes step-down processes that help determine where broad-scale objectives apply on the ground while allowing local managers to implement those objectives through projects tailored to local needs and conditions.

Comment: *ICBEMP must prepare a regulatory flexibility analysis in compliance with the Regulatory Flexibility Act.*

Response: Planning decisions, such as ICBEMP, are not subject to regulatory flexibility analysis requirements since they do not constitute "rules" as defined by the Small Business Regulatory Enforcement and Fairness Act. Planning decisions are made under the National Forest Management Act and Federal Land Policy and Management Act and the implementing rules that govern planning.

Comment: *The Forest Service is currently implementing Subbasin Review, and the Colville National Forest in northeastern Washington State has been pre-implementing watershed scale ecosystem management projects. Therefore, the plan is being implemented prior to the Record of Decision, which is in violation of the National Environmental Policy Act (NEPA).*

Response: Decisions to implement management actions are subject to plan conformance and NEPA compliance requirements. Processes, such as Subbasin Review or Ecosystem Analysis at the Watershed Scale, are not subject to planning and NEPA requirements and can be adopted at any time. Relative to projects, both NEPA and the Endangered Species Act require consideration of new information such as the Scientific Assessment and subsequent ecosystem assessments in analyses of new and ongoing projects. Designing projects to incorporate the new science information is therefore appropriate and can be immediately implemented for projects that are in conformance with the current land use plan. If incorporating the new information results in actions not in conformance with existing plans, projects can still be implemented where the project analysis meets formal plan amendment requirements.

Comment: *ICBEMP uses a top-down approach to public land and forest management and is, therefore, in violation of the National Forest Policy Act (NFMA), Federal Land Planning Management Act (FLPMA), and the National Environmental Policy Act (NEPA).*

Response: The Record of Decision will provide for a consolidated plan amendment process for 62 Forest Service and BLM land use plans. As such, it meets land use plan-level provisions of both NFMA and FLPMA. The amendments are necessary to incorporate new cumulative effects information relative to significant forest and rangeland health and endangered species issues, as required by NFMA, FLPMA, NEPA and the Endangered Species Act (ESA). These broad-scale issues could not be as effectively and efficiently addressed through individual plan-by-plan amendment processes.

Comment: *ICBEMP is in violation of the Unfunded Mandates Executive Order since the cost of implementing the strategy is not budgeted and will be prohibitive.*

Response: Implementation of the proposed decision will be financed, as are most land management actions, through federal appropriations from the Congress. The Final EIS assumes that, at a minimum, current funding levels would continue to be appropriated to the agencies. The action alternatives were designed to "accommodate a range of funding levels so that Congress and the Administration can consider, on an annual basis, the costs and benefits of action and inaction and set an appropriate pace for restoration and management" (Babbitt and Glickman 1998). Two principles underlying the alternatives are that (1) the cost of the alternatives must be realistic with respect to current funding levels for the land managing agencies, and (2) the pace of implementing the alternatives will vary with the amount of funding; however, the emphasis and strategies of each alternative would remain the same regardless of the funding level. As such, the alternatives were designed to be implemented at current funding levels, as well as at increased levels, and the costs and outputs of the alternatives were analyzed at those varying levels.

Comment: *The agencies did not determine which areas are suitable and/or "chiefly valuable" for grazing or forage before allocating those areas to grazing, in violation of the Taylor Grazing Act, the Federal Land Policy & Management Act, and the National Forest Management Act.*

Response: The broad scale of the analysis and direction is not appropriate and was not intended to make grazing allocation decisions. Because of the variability of conditions within the interior Columbia River Basin, the broad-scale direction is outcome-based rather than prescriptive. The step-down process will use hierarchical assessment information to ensure that local decisions implement broad-scale, outcome-based direction while allowing for actions to be designed to fit actual conditions on the ground. The outcome-based direction will augment existing

land use plans, and ongoing actions will be brought into conformance with these amended plans through step-down and existing program-specific procedures.

Relationship to County Land Use Plans

Comment: *Management direction in this EIS must be reconciled with county land use plans.*

Response: The Final EIS and proposed decision are sent to the governor of each of the four states in the ICBEMP planning area for a consistency review, as prescribed by BLM planning regulations (43 CFR 1610.3-2). This review gives each governor the opportunity to identify inconsistencies between the proposed decision and officially approved or adopted resource related plans, policies, or programs of state and local governments, and to make recommendations in writing to the ICBEMP decision makers.

Land Status, Ownership, and Uses

Historical, Prehistoric Use of Public Lands

Comment: *The Supplemental Draft EIS assumes that the perfect landscape results from purely natural processes.*

Response: The Supplemental Draft EIS focuses on landscape-level processes and functions, in the context of the desires and needs of society. The desired conditions expressed in the objectives reflect both biophysical and social elements, because any discussion of ecosystems is also inherently a discussion about the way humans value and use the land. The EIS Team used the concept of "ecosystem health" to refer to the capacity of forest, rangeland, and aquatic ecosystems to persist and perform as expected or desired in a particular area. The underlying assumption is that the needs of society today, as well as those of future generations, depend on the integrity of physical and biological processes, patterns, and functions.

Effects on Private Lands

Comment: *The project will result in federal management of private land or takings of private property rights. The management direction does not specifically address how private property rights will be affected or disclose other negative impacts to private land or property.*

Response: There can be no direct takings of private property rights from the alternatives analyzed in the Supplemental Draft EIS. The management direction acknowledges that actions on Forest Service- and BLM-administered lands may cause direct, indirect, or cumulative effects on non-federal lands and vice versa. Objectives and standards in the alternatives are designed to reduce off-site negative effects from planned actions or unplanned events on federal lands and to include stakeholders in collaborative assessments and restoration efforts.

Comment: *The adverse effects of noxious weeds on private lands is not mentioned.*

Response: The Supplemental Draft EIS analyzes the broad effects of noxious weeds across the entire basin and, where specific to BLM- and Forest Service-administered lands, the effects conclusions can be extended to adjacent non-federal lands. The Cumulative Effects on Non-Federal Lands discussion in Chapter 4 of the Supplemental Draft EIS provides examples of noxious weeds or fire spreading beyond federal or private lands and concludes that, for these examples, direction in the Supplemental Draft EIS could benefit adjacent landowners indirectly from better controls on noxious weeds and less severe fires.

Land Status

Comment: *The effects and interrelationship on nearby land are not addressed.*

Response: Both the *Scientific Assessment* and the Supplemental Draft EIS cumulative effects analysis addressed resources and interrelationships across all lands within the basin. As stated in Chapter 4 of the Supplemental Draft EIS, under Cumulative Effects on Non-Federal Lands, "Analysis was presented at the basin level, for all land ownerships... to assess potential cumulative effects... These effects are disclosed in individual sections of this chapter." The level of detail for this analysis is commensurate with the broad-scale nature of the alternatives.

Comment: *The plan should clarify what is meant by goods and services, and it should distinguish between industrial uses and other less harmful uses of the land.*

Response: The Effects of the Alternatives on Annual Level of Goods and Services discussion in Chapter 4 of the Supplemental Draft EIS recognizes

that goods and services "potentially represent a large array of benefits." The analysis distinguishes between "commercially marketable outputs" and "ecological restoration activity." Although the term Goods and Services is used generically in goal statements and social and economic effects summaries, resources and land uses that fall under this term are addressed individually in the Chapters 2 and 4.

Comment: *The Supplemental Draft EIS does not explain how access to state lands will be treated under this project.*

Response: As stated under the Valid Existing Rights section of Chapter 1 of the Supplemental Draft EIS, "nothing in this plan can override valid existing rights on Forest Service- and BLM-administered lands." Under the management direction, access issues will be reviewed through roads analysis and access and travel management planning processes, which are expected to involve state, county, and local government representatives.

Comment: *The XXX Public Utility District is concerned that the management direction may affect the use of BLM-administered lands under our current license or affect the future re-licensing of the XXX Project.*

Response: The Supplemental Draft EIS states that "some reasonable changes may be required in the way activities are carried out" in order "to meet the objectives of an alternative." At the time of re-licensing of a project, new stipulations potentially needed to bring ongoing projects into line with the new direction would be analyzed and incorporated into the license to the extent provided under agency re-licensing authorities.

Biophysical Components

Soil, Air, Climate Change

Soil Quality and Productivity

Comment: *The Supplemental Draft EIS provides no direction to ensure that future activities will avoid or even reduce further detrimental effects on soils. The preferred alternative proposes extensive thinning of forest stands to restore habitat and reduce risks of severe fire while providing economic benefits to local communities. Because the trees removed are expected to be relatively small and of lower value, there will be considerable incentive to use lower-cost ground-based logging equipment. Although the SAG Effects Analysis predicts relatively minor increases in soil disturbance, this prediction is based solely on the assumptions that low-impact equipment and methods will be used and that they will be used properly. The Final EIS should ensure that extensive use of ground-based logging equipment won't perpetuate past problems, particularly soil compaction.*

Response: The Final EIS contains broad-scale objectives that direct the agencies to implement land uses in ways that protect, maintain, and restore soil productivity.

Because of the broad variation in landscapes across the project area, it is appropriate for the land use plan amendment and revision process to be used to identify and apply the relevant analysis techniques and prescriptive criteria at the local scale. Through context-setting analyses that result from applying the step-down process, each local unit would develop prescriptions and management techniques best suited to each situation. Therefore, the preferred alternative does not prescribe specific management techniques or locations for applying them, but it does require land managers to apply sound analysis supported by science when planning, designing, and making decisions for implementing site-specific actions that will lead to attainment of predicted outcomes. Proposed and ongoing activities that are not consistent with the management direction regarding soils would have to be designed or modified so they will contribute to the attainment of ICBEMP objectives.

Comment: *The Effects Analysis in the Supplemental Draft EIS identifies grazing as the cause for declining soil production. That conclusion is in direct conflict with BLM data which shows continuing improvement in range conditions.*

Response: The Supplemental Draft EIS describes the causal factors that *can* result in declining soil productivity levels, which include but are not limited to, wildfire, timber harvest, road construction, and uncharacteristic livestock grazing effects. The effects of the preferred alternative are expected to continue current trends toward attainment of historical soil functions and processes.

Comment: *It appears that the scientific models have produced inaccurate and unreliable results, because some discussions in Chapter 2 are not consistent with the analysis presented in Chapter 4. For example, Chapter 2*

describes soil productivity across the project area as stable or decreasing. Causal factors are said to be "improper implementation of vegetation management activities, road construction and maintenance, excessive livestock grazing pressure, and uncharacteristic wildfires." In Chapter 4, Map 4-10 shows a majority of the lands in the project area in the "high effect" class for livestock grazing effects. Many of these areas may have already have crossed thresholds to more degraded states. Yet, Table 4-1 reports that 92% of the soils in the project area are currently in disturbance classes of None, Very Low, or Low Disturbance. Please explain.

Response: The data, assumptions, and analyses in the Final EIS use the best available scientific information. Because there is no single source for soil disturbance data for the project area, this information was gathered by the Science Integration Team (SIT) for use in characterizing conditions and trends for Chapter 2 of the EIS. The data are intended to be used for assessing broad-scale trends and are not for use at the fine or local scale. Using this broad-scale data, the *Assessment of Ecosystem Components* (Quigley and Arbelbide 1997) characterized and described the historical and current conditions and trends of the wide-ranging lands of the project area. The *Assessment* also provided information on important processes and structures that maintain ecosystems and supply good and services.

The estimates on soil disturbance provided by the Science Advisory Group (SAG) for use in determining effects for Chapter 4 of the EIS are broad-scale and relative to current conditions. Each subwatershed was classified into a general class or level of soil disturbance (none to very high) for the current time and into the future based on the management direction described in the alternatives. Chapter 4 of the Supplemental Draft EIS (pages 4-13 and 4-14) describes in more detail how the effects on soil disturbance were determined. It is to be expected that conditions projected under the proposed action alternatives displayed in Chapter 4 might be different from the current and historical conditions presented in Chapter 2.

To ensure consistent application of the scientific information, the EIS Team interacted with members of the SAG during development of the Supplemental Draft EIS to ensure correct application and interpretation of scientific concepts, information, and assumptions.

Comment: *The Supplemental Draft EIS is unclear about what criteria are used to determine the extent of unstable and potentially unstable lands. Unstable lands should be identified as part of project planning prior to identification through land use plan revisions. Furthermore, the two standards in the preferred alternative that address these lands do not provide binding direction or prohibit new roads or logging in areas identified as unstable or potentially unstable.*

Response: The management direction for unstable and potentially unstable lands has been reorganized to improve clarity in the Final EIS.

The direction in the Final EIS is outcome-based rather than prescriptive, and the information and findings in the Final EIS are broad in nature. These factors require land managers to apply sound, science-based analysis when planning, designing, and making decisions for implementing site-specific actions on these areas. There are many scientifically supported methods and techniques that can be used to conduct analysis on unstable lands, and the landscapes in the project area vary widely. Therefore, the intent of the management direction is to use the land use planing process to identify appropriate analysis techniques and apply appropriate prescriptive criteria to manage unstable lands at the local level.

Comment: *Please explain how sites with coarse-textured soils can produce sufficient biomass to produce high-intensity high/severity fires if these soils are also most susceptible to becoming water-repellent.*

Response: Granitic, coarse-textured soils are common in some dry forest lands, such as the ponderosa pine types. The natural fire regime for these forest types is non-lethal, frequent, and low-intensity fire. Although these sites are inherently dry, the soil litter, tree needles, and understory grasses provide enough biomass to decompose and create water repellent soil conditions when they are burned. In addition, water-repellent soil conditions can be created in these soil types even in the absence of fire because of the very hot, dry conditions affecting biomass decomposition.

Air Quality

Comment: *Any effort to return fire to the ecosystem must be balanced with the need to protect public health and air quality. This can be done by using smoke management programs that require burning take place under favorable smoke dispersal conditions, using burning*

techniques that minimize emissions, placing emission limits on prescribed burning (as compared to "unlimited" burning), and conducting realtime air quality monitoring.

New regional haze rules will place even greater focus on minimizing emissions and impacts from prescribed fire. The Supplemental Draft EIS should acknowledge that the major increases in prescribed burning could lead to regional haze and plume blight impacts in Class I areas of Interior Columbia River Basin, and include a regional haze impacts analysis and should include a visibility and overall air quality analysis in Chapter 4.

Can states remain in compliance with the Clean Air Act using more prescribed fire, especially considering new emissions standards by EPA? The agencies need to balance the smoke they create with forest land burning on state and private land.

Response: Management activities must conform to applicable state and federal air quality regulations and laws. The Supplemental Draft EIS demonstrates adherence to applicable air quality regulations at the programmatic level, and states that more detailed air quality analyses will be conducted at subsequent planning levels when emissions can be more accurately quantified and the locations and meteorology associated with a specific burn are known.

At the broad scale, implementation of the Supplemental Draft EIS would improve air quality by reducing the total amount of smoke in the air and by spreading that smoke out over more of the year and more of the project area. Prescribed fires would put smoke in the air during spring and fall burning windows that would otherwise be concentrated during the summer fire season some year in the future. Prescribed fires would occur at a time when the weather conditions are conducive to smoke dispersal, reducing the concentration of effects. Ultimately, this would lead to a reduction of the severe peaks in the poor air quality that could be expected in the future due to wildfire.

Global Climate Change

Comment: *The information in Chapter 2 of the Supplemental Draft EIS on climate change should include a discussion of the historical range of variability in vegetation.*

Response: Developing historical ranges of variability from trends in regional climate patterns would be inappropriate and highly speculative because proxy data must be used to estimate climatic trends for years prior to 1900. Climate change is not expected to be affected from implementing the direction in the preferred alternative, and no additional analysis was done.

Comment: *The Final EIS should examine the climatic change issue in more depth. For example, while the Supplemental Draft EIS notes that there has been significant warming over the last several decades, it does not note that one of the most significant events occurred in the 1950s, a period that also had a corresponding change in salmonid production throughout the Pacific Northwest.*

On the other hand, the Supplemental EIS does not address the real cause of the decrease in biodiversity in the project area, which is the global cooling process now underway. Biodiversity always decreases in an ice age as a natural consequence of cold stress at the higher elevations and higher latitudes.

Response: Global warming, or climate change, is continually being debated within the scientific community. As discussed in the *Scientific Assessment*, which was based on current literature, it is well known that climate change strongly influences ecological processes such as biological productivity, fire regime, soils, streamflow, erosion, and human uses of the land and resources. Climate has always changed over time, resulting in continuous adjustments by aquatic and terrestrial ecosystems. However, it is unknown how much human activities have contributed to the documented changing climate patterns in the Pacific Northwest and globally. The level of analysis needed to address the issue of global climate change is beyond the scope of the ICBEMP EIS.

Disturbance Processes and Mechanisms

Disturbance Processes

Comment: *Static steady-state old forests cannot be maintained because landscapes are dynamic and will be replaced through natural disturbance. Yet the alternatives propose steady-state management approaches for permanently designated riparian areas, wildlife corridors, landslide prone areas, and recreational facilities.*

Response: The Final EIS proposes that some areas in the project area be managed in a conservative way in

the short term. These areas include Riparian Conservation Areas, A1 subwatersheds, T watersheds, landslide prone areas, and areas where threats to threatened or endangered fish species exist. The Final EIS recognizes that these areas are changing and cannot be held in the present condition forever; however, important resources in these areas are perceived to be at risk from management. The intent of step-down analyses is to reduce the overall risks to resources while maximizing the opportunities to conserve and restore these resources. The step-down process will help identify where risks are acceptable and the types of activities that will be needed in these areas.

Comment: *Timber companies will be adversely affected if the Forest Service does not provide adequate levels of fire prevention and suppression, or if it does not control insect and disease infestations that adversely affect forest health.*

Logging, as a prescribed remedy, treats only a symptom of the problem of fire suppression. Without fundamental changes to fire suppression policy the primary problem will continue and the Forest Service and the BLM will never have the workforce or the budget to keep up with the increasing problem of conifer encroachment.

The Supplemental Draft EIS needs coverage of forest health threats regarding insect, fire, and disease potential that is adequate to prioritize the aggressive treatment so vitally needed.

Otherwise, culmination of this analysis will be a repeat of the 1910 fire, 1934 fire, 1929 fire, Tillamook fire, etc.

Response: Alternatives S2 and S3 in the Supplemental Draft EIS provide strategies to plan and conduct restoration activities across the project area that reduce the prevalence of and increase resilience to uncharacteristic disturbances such as insects, disease, and fire, among others. For example, in Chapter 3 Objective B-O9 (page 54) and restoration objective R-O2 (page 102) address these concerns specifically. Alternative S2 and the proposed decision are expected to lower the level of wildfire on Forest Service- and BLM-administered lands in the long-term using activities such as prescribed fire, "wildland fire use for resource benefit," and fuel reduction, to create sustainable vegetation patterns and disturbance regimes that society and ecosystems can accept (see Chapter 4, page 188). The need for wildfire suppression or control of insect and disease infestations should decrease as healthy and sustainable vegetation patterns increase.

How aggressively restoration activities are applied to any specific area will depend on the budgets available for restoration use and the risks to other resources in that area. For instance, where threatened or endangered species exist, the area may have lower priority for restoration because of potential risk of disturbance to those species.

Comment: *No scientific evidence exists that timber harvests, roads, and livestock grazing are rational ecological surrogates for natural disturbance regimes. Given the historical track record and the present political/bureaucratic linkages, the opposite could be argued.*

Response: Both the baseline direction and the restoration strategy in Alternatives S2 and S3 in the Supplemental Draft EIS address these concerns. Baseline direction focuses on preserving management options and preventing further declines in landscape processes and functions (for example, Objectives B-O7 and B-O10 and Standard B-S12). The intent of landscape restoration direction is to repattern vegetation and disturbances and to restore watersheds and streams, to a condition more consistent with landform, climate, and biological and physical characteristics of the ecosystem (for example, Objectives R-O2 and R-O4). The most effective types and mix of restoration activities will vary depending on the emphasis or priority in an area. Appendix 14 describes the types of activities that could be most effective in areas with different emphases. Thinning, harvest, prescribed fire, and other restoration activities can be used to resemble needed effects such as reduction of fuels, elimination of fuel ladders, and growing space for the larger residual trees. The result is a more sustainable and vigorous ecosystem that is more resilient to natural disturbances.

Comment: *Dead brush, etc. increases the risk of damage from a fire. It should not be burned or otherwise destroyed, but recycled.*

Response: At the finer scale, local managers can choose to recycle. However, at the broad scale addressed in the Final EIS, costs of recycling material such as brush are prohibitive. Prescribed fire, which can be done on a much larger scale, brings benefits such as nutrient cycling and creation of seed beds in addition to fuel reduction.

The retention of snags and other woody material for the benefit of animal species, soil function, etc. is addressed on in Chapter 3 pages 68-70, of the Supplemental Draft EIS.

Comment: *In Chapter 3 page 62, B-O22, could you clarify what this means, where a Forest Plan prohibits the use of prescribed natural fire in wilderness. Would this standard apply to the BLM?*

Response: The wording chosen in this objective specifies that it would apply only to wilderness areas designated by the U.S. Congress. BLM wilderness study areas would not be included under this objective.

Comment: *Many comments ask that the Final EIS restore fire as a natural ecological process. Many other comments address the pros and cons of fire as a management tool:*

- *The Final EIS should emphasize the use of prescribed natural and management fire to reduce fire risk.*
- *Prescribed fire is the best way to restore old growth ecosystems to their original condition.*
- *Risks from prescribed fire include burning the entire organic soil layer or exposing large areas of soil. The intensity and magnitude of set fires cannot be controlled with any certainty.*
- *More emphasis should be placed on the use of mechanical vegetative treatments.*
- *The alternatives propose to allow 20 to more than 40 percent of the forest to naturally burn every decade. The project relies too heavily on prescribed fire plans to restore forest health.*
- *The ability of the Forest Service and the BLM to accomplish necessary levels of prescribed burning is over estimated.*
- *When the number of acres planned for prescribed burning increases dramatically, as it would under Alternative S2, what other mechanisms will exist to help meet targets when they physically cannot be met with fire?*
- *The Los Alamos Fire showed the danger of relying too heavily on prescribed fire as the main restoration tool in forested habitats.*
- *Collaborative efforts are needed to achieve as much of an increase in prescribed fire as possible.*
- *More balance between proposed harvest and prescription burning is needed to alleviate the problem of funding.*
- *Active management using mechanical treatment offers the opportunity to restore vegetation patterns and disturbance regimes without the risk of catastrophic wildfires or Los Alamos type accidents, while sustaining rural people and traditional industries.*
- *Commercial thinning and stewardship harvesting might be the better approach [compared with prescribed fire].*

Response: Although the Final EIS proposes a large increase in the use of prescribed fire, the predicted increase would be a combination of mechanical thinning and prescribed fire. Mechanical thinning is needed to reduce fuel levels before prescribed fire can be applied so that desired objectives can be met safely. Thinning and prescribed fire each have benefits that the other cannot provide.

Both the baseline direction and the restoration strategy in the Final EIS address these concerns. For example: Objectives B-O14 through B-O22 and Standards B-S18 through B-S21 discuss fire management, including when and where to use prescribed fire. Objective R-04 describes the use of an "integrated mix" of restoration activities including silvicultural practices, rangeland management, noxious weed control, and prescribed fire to repattern vegetation and achieve sustainable landscape conditions using management activities appropriate for the management emphasis of an area. Objective R-05 discusses practices in the urban-rural-wildland interface. The Science Advisory Group analysis of effects predicts that the proposed large increase in thinning and prescribed fire can be accomplished without undue risk to persons or property and without exceeding clean air standards. Evaluating risks and predicting effects will happen through analysis and collaboration. Objectives such as B-O59 address to collaboration issues.

Removing commercial products when possible is desirable because it helps pay for restoration activities and provides products for economic support of nearby communities. Mechanical thinning has some advantages. It gives more control over the composition and arrangement of the residual stand, does not have to be done during short weather windows, and can produce economically valuable products that can cover the cost of the restoration. Objectives such as B-O64 address economic issues. However, most of the byproducts from this type of thinning may be too small or too poor in quality to be merchantable.

Prescribed fire, when that is an option, is more economical than a non-merchantable mechanical thin.

Comment: *Spring burning is far too dangerous for bird fledglings, young mammals in burrows, and sensitive flowering plants; it also decreases retention of moisture in soils and decreases replenishment of the underground water table. Please ban all spring burning.*

Response: Although spring prescribed fire has its risks, it can bring greater benefits to wildlife and plant species. Prescribed fire will recycle nutrients and invigorate plant growth. Unlike many wildfires, prescribed spring fires are generally not intense, are more patchy, and their effects are not as severe. During spring, soil moisture levels are generally at their maximum and site recovery is rapid. B-O19 directs the use of fire to be balanced with other specific environmental concerns and B-G28 suggests that prescribed burning be conducted during the time of year when fire would have normally occurred if resulting effects match desired outcomes and if fire can be controlled within a defined target area.

Comment: *I would like to see less fire suppression as wildfires are part of the natural process in the environment.*

Response: The intent of the Final EIS is that over the long term, the need for wildfire suppression will be reduced. However, at the present, the need for fire suppression may be increasing because of the large amount of fuels and the continuity of fuels, the trend in increasing size of wildfires, severe effects of wildfires, and the risk to public property and safety.

The proposed decision is expected to lower the level of wildfire on Forest Service- and BLM-administered lands in the long term using activities such as prescribed fire, "wildland fire use for resource benefit," and fuel reduction, to create sustainable vegetation patterns and disturbance regimes that society and ecosystems can accept (see Supplemental Draft EIS, Chapter 4, page 188). The need for wildfire suppression should decrease as healthy and sustainable vegetation patterns increase.

Wildfire and Suppression

Comment: *The EIS states that effects from uncharacteristic wildfire are expected to increase slightly under Alternative S1, and decrease in Alternative S2 and S3, with Alternative S2 slightly better on Forest Service- and BLM-administered lands in the long term. Clarify which Guidelines, Standards, or Objectives allow these effects to be stated.*

Response: It is the combination of the total package of the management direction (all objectives, standards, guidelines, and intent) that lead to the expected effects, including uncharacteristic wildfire, as predicted by the Science Advisory Group.

Comment: *Some respondents say to manage wildfire with low impact techniques. Others think that many wildfires are necessary and should not be controlled.*

Response: One of the biggest impacts to the forest ecosystems of the project area is the addition of permanent human dwellings, and other property, both public and private. This makes it very dangerous to let wildfires burn, especially in the urban-rural-wildland interface. Fuel reduction should decrease the likelihood of loss of life or damage to property from wildfires. Objective R-05, for example, directs fuel reduction through a variety of techniques in the urban-rural-wildland interface. Standard B-S21 and Objective B-O20 address fire management plans and fire response planning.

The Forest Service and BLM have set a nationa-wide priority of protecting life and property. This precludes allowing wildfires to burn except in very remote locations, under somewhat moist conditions and in favorable weather. Fire managers are often not willing to risk using low impact techniques of wildfire suppression because of their lack of effectiveness. This is not expected to change until prescribed fire is more common on a given landscape.

Comment: *We are concerned about the impact of smoke from prescribed fire on air quality. With increases in prescribed fire, can states remain in compliance with the Clean Air Act? The agencies need to balance the smoke they create with forestland burning on state and private land. While people may agree in principle with restoration harvests and reducing fuel hazards, they often object to smoke well below the legal thresholds.*

Response: One focus of the Final EIS is the protection of air quality through collaborative management of the effects of prescribed fire smoke and, in the long term, reduction of the size of wildfires. (See Objectives B-O14 and B-015). In addition, the risks and benefits to air quality through prescribed burning will

be compared with the risks and benefits of alternative methods of modifying vegetation, habitat, and fuels (see Standard B-S18, among others). Although in the short term air quality may diminish in some locations during times of prescribed burning in the spring, this plan should lead to an overall improvement in air quality. The amount of smoke produced by prescribed fire, as modeled by the Science Advisory Group, is not expected to exceed air quality standards set by the Congress.

The Final EIS also mandates collaboration among administrative units and federal, state, tribal, and local air-quality-management agencies (Objective B-O16, among others). The intent is to preclude impacts from multiple sources that could collectively produce severe visibility problems or particulate levels that present health risks.

Comment: *Wildfire is a natural ecosystem process. The "catastrophic" label is an anthropogenic and emotionally laden descriptor. Mother Nature does not qualify her actions. The specter of wildfire and its potential effects on aquatic ecosystems has been over-hyped and distorted. Poor fire management has created unnatural fire regimes and conditions. There is no evidence that more timber sales and a little prescribed burning will alter this situation.*

Response: The term "catastrophic" is not used in the Final EIS. The term "uncharacteristic" is used specifically in reference to disturbances that are outside what would normally have occurred historically and that have more severe effects than expected. It is an indication that the disturbance regimes and the vegetation patches, patterns, composition, density, and structure are out of sync with the biophysical characteristics of the site. Historically, the role of fire varied across the project area with land type, climate, and vegetation type. However, fire suppression has led to changes in vegetation composition and structure and to increased fuels, which have significantly increased the intensity and severity of fire in most vegetation types (see Supplemental Draft EIS, Chapter 2, pages 37-89). The most effective types and mix of restoration activities, which include prescribed fire, thinning, and harvest, will vary depending on the emphasis or priority in an area and are described in Appendix 14. Evidence shows that when thinning and prescribed fire are used on a small scale, effects can be overwhelmed by landscape-scale disturbances. However, when thinning and prescribed fire are carried out on a larger scale, they can lessen the intensity of the disturbance.

Comment: *Statements in chapter 2, pages 225 and 226 of the Supplemental Draft EIS, such as "Most forest health problems are in areas that have been roaded and harvested," and "Fire exclusion effects have been greatest in the most heavily roaded areas," are incorrect.*

Response: These statements refer specifically and respectively to the moist forest and dry forest vegetation types and their associated location, productivity, and history of natural and human-influenced disturbances (Hann, Jones, Karl, et al. 1997). In general, roadless and wilderness areas have more similarity to historical conditions than areas with roads because less harvest has occurred and because fire exclusion has been less successful. However, fire suppression has led to changes, both in roadless and roaded/harvested areas, in vegetation composition, a shift toward shade-tolerant trees, a higher proportion of denser, multi-storied stands, and a more contiguous, larger proportion of the landscape in the mid-seral stage. The result is more uncharacteristic insects and disease, as well as uncharacteristic fire, a condition also called "forest health" problems.

Prescribed Fire

Comment: *Good intentions do not keep fire from burning out of control. Recent examples in California and New Mexico give this process an undeserved reputation.*

Response: The Forest Service and BLM have many rules and regulations governing the use of prescribed fire, including planning and preparation. These procedures were created to prevent accidents and reach the intended objectives. The Forest Service and BLM have an exceptionally good record in their use of prescribed fire. The experience gained with each fire season continues to improve on that dependable safety record.

Comment: *Standard B-S19 indicates that prior to any prescribed burning the existing air quality network should be identified and described. B-S19 should be amended to specifically indicate that wind roses that show prevalent wind direction, wind frequency, and wind speeds be disclosed in all analyses of prescribed burning projects.*

Response: Objectives B-O16 and B-O17, among others, provide direction for collaborative planning among air-quality-management agencies and public and private landholders to manage particulate emissions and protect life and property. Objective B-O19 directs the use of fire to restore or sustain

ecosystem health based on sound scientific principles and information and in balance with other societal goals. Specific techniques to achieve this objective are left to the discretion of local managers.

Fuels

Comment: *The plan calls for aggressive thinning and logging to mitigate fire danger. However, scientific evidence shows that past logging and road building increases the risk of fire.*

The EIS does not acknowledge that logging often increases fire fuel loads by removing the large logs that are relatively less prone to burn. Thinning also increases wind and light penetration of the canopy and causes fuels to dry, which make them more prone to burn and increases the time it takes woody material to decompose.

Efforts to repair the damage caused to ecosystem integrity by fire suppression, road building, and logging by simply proposing more of the same are misdirected.

Dr. James Agee's (1996) research has demonstrated that reducing ground fuels is the most effective treatment to prevent crown fires, while thinning tree canopies results in hotter, drier, windier conditions on the ground surface. Similarly, Forest Service Chief Mike Dombeck has stated that 87 percent of the areas at high risk for catastrophic fire on National Forests are in roaded areas, while only 13 percent in roadless areas. The Sierra Nevada Ecosystem Project Report (USFS 1996) also states that, "mechanical treatments fail to mimic the numerous ecological effects of fire."

Response: Thinning and harvest will be needed in combination with prescribed fire to achieve restoration objectives in the forested ecosystems. Objective R-04, among others, directs the use of an "integrated mix" of restoration activities including silvicultural practices, rangeland management, noxious weed control, and prescribed fire. Due to many years of wildfire, fuels have accumulated in the forests of the basin such that prescribed fire can no longer be used safely in many places without a mechanical pretreatment.

The effects of thinning vary depending on forest and fuel structure following thinning, environment, fire conditions and other factors. There is no single approach that works in all forest types, hence the requirement for step-down analysis in project design. When done properly, thinning does not increase fuels and does not dry the fuels faster. Thinning reduces the total evapotranspiration in a forest by reducing the amount of vegetation on a site to pull water from the soil. In this way, it leaves the soil moister and the higher moisture content in the remaining vegetation makes it more resistant to burning. The timber harvest proposed in the Final EIS, called "stewardship harvest," favors leaving large trees and shade-intolerant trees in a more healthy and vigorous forest. Stewardship harvest also recognizes the need for snags and downed woody debris and also other resource needs as the harvest is planned and conducted. Thinning and stewardship harvest reduce fuel loading and ladder fuels, and relieve stress from competition between trees, giving the residual trees space to survive and grow. The result is a more vigorous and healthy stand of trees and a forest that is resilient to fire.

The Scientific assessment discusses the effects of stand management on fire in the interior Columbia River Basin. A more recent review (Graham et al. 1999) suggests that intermediate levels of stand thinning can have mixed effects on subsequent fire behavior. Thinning can reduce the severity and intensity of wildfire, but may not reduce the potential for crown fire, except in dry ponderosa pine forests. Graham et al. (2000) found that moderate or heavy thinning may be required to "fire-proof" stands.

Comment: *For some respondents:*
As with the Los Alamos fire, where grazing and other natural resource use/management is reduced or eliminated, the potential for fire disaster is greatly amplified.

The alternatives appear to be willing to sacrifice forestland to wildfire rather than put these lands under stronger forest management scenarios.

A very large and catastrophic fire will blacken the unroaded and unmanaged areas of national forests. It is probable this fire will occur within the next 10 years.

For other respondents:
The agencies' own science does not support the idea that fire suppression has altered these systems. Most public forests were never dry open stands of ponderosa pine. In any case, roadless areas have been less manipulated and fire has played a more significant role in those areas in the past 60 years.

The Final EIS should prohibit use of prescribed fire in wilderness areas. It should also exclude prescribed fire

from inventoried roadless [areas]. These areas are the only remaining natural and wild areas that exist in the lower 48 states. They should be left alone, and allow nature to determine what part of the forest should burn, and what part should not.

Response: Historically, the role of fire varied across the project area with land type, climate, and vegetation type. However, fire suppression has led to changes in vegetation composition and structure and to increased fuels, which have significantly increased the intensity and severity of fire in most vegetation types (see the Supplemental Draft EIS, Chapter 3 pages 37-89), and especially in the dry and moist forests. Through active fire suppression, past and present, wilderness and roadless areas are altered already.

Currently, much of the land within wilderness and roadless areas exhibits more similarity with historical conditions than other areas. However, because of lack of low intensity disturbances and very little restoration work, wilderness and roadless areas are expected to show less similarity in vegetation composition; a shift toward shade-tolerant trees; a higher proportion of denser, multi-storied stands; and a more contiguous, larger proportion of the landscape in the mid-seral stage, in the future. This will lead to uncharacteristically large, intense fires that are difficult to stop in drought years during dry, windy weather. This can make recovery more difficult and in extreme cases can altogether change the path of natural succession.

Active management is precluded by law in wilderness, so this condition is not expected to change. Prescribed fire is often difficult or cannot achieve objectives without a mechanical pretreatment, and surrounding resources and property are in danger when natural fire is allowed to burn in wilderness during dry conditions. The most effective types and mix of restoration activities will vary depending on the emphasis or priority in an area. Appendix 14 of the Supplemental Draft EIS describes the types of activities that could be most effective in areas with different emphases. Maintenance and restoration of fire regimes using a variety of techniques are a high priority in T watersheds and A2 subwatersheds in the proposed decision. Because the emphasis is on conservation, active restoration activities would be limited in A1 subwatersheds and wilderness areas.

Insects and Disease

Comment: *Provide rationale for the statement in chapter 4 of the Supplemental Draft EIS on page 65 (2nd paragraph): "Much of the uncharacteristic insect and disease activity is expected to be in wilderness areas."*

Response: Historically, the forests of the project area were naturally thinned by low intensity wildfire. Over the past 50 to 100 years, these fires have been suppressed in forests, including wilderness. In the Final EIS alternatives, much of the Forest Service- and the BLM-administered lands outside wilderness would be treated in an effort to restore them to a healthier condition. Because this restoration will not take place in wilderness and fire levels will remain far below historical levels there, the forests in wilderness are expected to become even more dense, leading to stress and insect and disease problems.

Comment: *Opportunities exist for improving insect and disease resistance in all forest structures. Further reduction in uncharacteristic insect and disease activity should be a pursued goal.*

Response: There are opportunities to greatly reduce the amount of uncharacteristic insect and disease in future forests of the project area. The Final EIS provides strategies to plan and conduct restoration activities across the project area that reduce the prevalence of and increase resilience to uncharacteristic disturbances such as to insects, disease, and fire, among others. For example, in Chapter 3 of the Supplemental Draft EIS, baseline Objective B-09 (page 3-54) and restoration Objective R-02 address these concerns. The proposed decision would be the most effective at reducing uncharacteristic insects and disease, by moving forest conditions closer to their historical range of conditions. The uncharacteristic insect/disease problem would be reduced through activities that thin dense timber stands, give growing space to trees, and make the trees more vigorous, such as thinning, harvest, or prescribed fire. However, some uncharacteristic insect and disease outbreaks would still be expected because of the extent of the problem needing attention and the lack of active restoration treatments in wilderness.

Forest Health and Management

Sucession and Disturbance

Comment: *The management direction frequently describes succession as predictable. However, in other*

areas, the direction indicates that because of disturbances, succession is not predictable.

Response: The general broad-scale pathways of vegetation development are predictable over several decades or longer and were used to model vegetation change and the influences of various disturbances. The development of finer-scale vegetation conditions following disturbances or due to succession without disturbance is less predictable when viewed at broad scales because specific information on site environment, seed sources, disturbance characteristics and other factors is usually not available. Succession itself goes through a generally predictable progression of stages in the absence of disturbances. Disturbances can either move succession back to an earlier stage or can accelerate succession.

Comment: *Early forest management direction should address the need to foster the development of shrubs.*

Response: Forest shrublands (in all structural stages) were identified as a covertype in short supply across the basin. In order to maintain and promote these covertypes and habitat areas that are in short supply, T watersheds were identified and mapped. The "source" habitats (in this case shrublands), within T watersheds, would be managed to maintain and secure these areas in the short- term (10 years); in the long term they would be managed to facilitate the expansion and connectivity of these areas. Restoration direction (Guideline R-G13) also promotes the use of prescribed fire to reduce woody species such as ponderosa pine, juniper, Douglas-fir and mountain big sagebrush, on sites where they are displacing the native understory vegetation and where perennial grasses are still present in adequate amounts to permit fire.

Comment: *Additional direction is needed to assist local managers in implementing defined forest management strategies, such as those to address the appropriate balance between the use of prescribed fire, harvesting, and mechanical treatment techniques to reduce fuel loading and the risk of large wildfires.*

Response: The most effective types and mix of restoration activities will vary across the landscape. For example, restoration activities in A2 subwatersheds might focus on aquatic/hydrologic restoration and the reduction of adverse road effects, whereas restoration in low and mid-elevation old forests might include silvicultural techniques and prescribed fire to accelerate the old forest characteristics of the area. Appendix 14 of the Supplemental Draft EIS provides local managers with descriptions of the types of activities that could be most effective in areas with different emphases or priorities.

Forest Potential Vegetation Groups

Comment: *The potential efficacy of thinning in moist forests is controversial and not well understood. Moist forests cover a wide variety of biophysical environments, support more tree species than other forest types, and reflect a complex fire regime complicated by fire exclusion and logging. These complexities and uncertainties should be reflected in a more conservative approach than is currently expressed in Objectives B-O30 and R-O2. In addition, these two pieces of direction should be reconciled with Objective B-O29 in favor of retaining habitats for Terrestrial Families 1 and 2.*

Response: The expected outcome of implementing the preferred alternative (specifically, Objectives B-O30 and R-O2) is an increase in dry or moist old forests. Late-seral moist forests are projected to recover to at least historical amounts over the long term. Late-seral, single story lower montane and montane forests, however, are not expected to recover to historical amounts. These forest types require relatively frequent fire or other disturbance to reduce understory densities; hence, the direction calls for some level of prescribed fire or thinning in many of these forests. For Terrestrial Family 1 (low elevation old forest family) and Family 2 (all elevation old forest family) single story forests are the most scarce source habitat. In many cases thinning, or a combination of thinning and prescribed fire, is needed to restore these single story forest habitats.

Comment: *How does the management direction apply in areas where, historically, stand-replacement fires were the norm? Examples of these areas include upper elevation, uneven-aged forests of lodgepole pine, alpine fir, and spruce.*

Response: Where the historical disturbance regime was stand-replacing wildfires, the intent is to restore a mix of vegetation patches and patterns appropriate to that part of the landscape and promote a disturbance regime that sustains it. These objectives can be achieved through the use of prescribed fire and/or timber harvest. However, restoration of lower elevation, dry forests is generally a higher priority than restoration of high elevation, uneven-aged forests.

Forest Land Restoration

Comment: *Restoration Objective R-O27 implies that forest health treatments will at some point occur in riparian areas. Restoration silviculture should be presumed to be inappropriate in riparian areas unless a clear showing can be made that management objectives cannot be met without it.*

Response: Much of the riparian woodland areas in the basin have been altered by activities such as road construction, timber harvest, and livestock grazing. Restoration of these important areas is intended to restore riparian habitat, processes, function, and connectivity. Restoration efforts are intended to focus on increasing diversity and improving the structure of riparian vegetation, banks, and bank stability. Restoration efforts in riparian areas would be designed to minimize risk to riparian and aquatic values. The objective is to design restoration activities that resemble effects of natural processes such as stream channel form, large wood, stream flow and sediment regimes. Any silvicultural treatments in these areas must achieve these objectives.

Forest Vegetation Composition and Structure

Comment: *The management direction does not reflect the following Hann and Wisdom et al. discussions of stand regeneration: "The commonly employed 5-year regeneration objective of accelerating the regeneration process by planting may have shortened the time that stands remained in the early seral stage. Planting in post-fire habitats may also shorten the duration of the stand initiation stage. The practice of planting also often reduces the abundance of herb, forb, and shrub structure from early-seral stands."*

"Allow natural development of early-seral, and post-fire habitats rather than accelerating reforestation in order to increase the representation of early seral shrubs where appropriate for the biophysical environment."

Response: The science analysis of potential effects of the Supplemental Draft EIS alternatives pointed out the importance of restoring open meadow, grassland, and forest mosaic conditions, since they historically occurred and were important habitat in some lands that are currently forested. Management direction calls for re-establishing the composition, structure, and pattern of vegetation across the landscape. This would include re-establishment of grasslands and shrublands appropriate to local environments and potential vegetation types. There are legal requirements to re-establish forests within 5 years following timber harvest. This requirement does not apply to the restoration of burned areas, however. Those areas can be managed to restore historical proportions of vegetation types including shrublands and grasslands.

Comment: *The Supplemental Draft EIS should provide greater protections for snag habitat.*

Response: The management direction proposes to maintain and/or recruit numbers, species, and sizes of snags and levels of downed wood to meet the needs of wildlife, invertebrates, fungi, bryophytes, saprophytes, lichens, other organisms, long-term soil productivity, nutrient cycling, carbon cycles, and other ecosystem processes. Standard B-S28 requires that local managers maintain and/or recruit snag and coarse woody debris numbers, species, and sizes within the desired range for RAC/PAC areas as established in Standard B-S29(S2) or for a watershed through the process in Standard B-S30(S2). If it is not possible to estimate snag numbers or coarse woody debris levels within a watershed, then managers are required to leave or recruit the number of snags and levels of coarse woody debris indicated by the desired range. If current snag numbers or coarse woody debris levels are estimated to be less than the desired range for a watershed, they must leave or recruit appropriate amounts of snags and coarse woody debris to move toward the established range. The tables in Appendix 12 of the Supplemental Draft EIS are to be used to determine snag numbers and coarse woody debris levels whenever vegetation management is done.

Other snag guidelines include leaving or recruiting additional snag numbers and coarse woody debris levels in areas that have been burned.

Comment: *While we support return of western white pine and white bark pine to local ecosystems, the direction and flexibility to accomplish this important objective is missing. Active management to accomplish this is in conflict with the aquatic goals and management limitations in the upper Clearwater Basin. The decline in both species has everything to do with blister rust and nothing to do with past logging levels. Some major drainages in our area have experienced a decline in western white pine from 44 percent to 3 percent. The solution to this problem will not be found in management by fire.*

Response: Western white pine has declined 95 percent from historical to current periods because of timber harvest, wildfire suppression and white pine blister rust. In the Butte, Upper Columbia/Salmon Clearwater, and Eastern Washington Resource Advisory Council areas, loss of western white pine has had a tremendous impact on the ecology of forest ecosystems, disturbance regimes and wildlife species that use those habitats. The interior Columbia River Basin Ecosystem Management Project direction intends to increase the geographic extent of western white pine in these areas and to continue to plant blister-rust-resistant stock and reduce competition to increase the abundance, genetic diversity, and distribution of these species. Multiple methods for increasing the extent of western white pine would be used including: selecting and testing new candidate rust-resistant trees, and judiciously using lower levels of rust-resistant trees; reducing mortality of infected pine through pruning and canker excision; minimizing selection pressure on fungus by conservative use of highly rust-resistant pine stock; monitoring for new races of rust; reducing competition and promoting more open stands which are less conducive to rush and spread; and protecting existing stands.

Comment: *The depletion of the genetic resource present in our native tree species is not addressed in the summary of the Supplemental Draft EIS.*

Response: Although a discussion of genetics is not included in the summary, it is addressed in the Supplemental Draft EIS. The management direction includes guidelines that recommend using natural regeneration where possible in order to maintain the genetic qualities that have been adapted to a climate and site over thousands of years.

Stewardship Harvest

Comment: *Explain why logging is now referred to as stewardship harvest.*

Response: Stewardship harvest is a term that came from the Forest Service annual timber harvest report. The primary objective of stewardship harvests is ecosystem health. Stewardship harvests primarily thin smaller diameter trees to promote forest health, as opposed to removing all trees in an area to realize economic objectives.

Comment: *Recent research shows that thinning mature forests can result in an increase in diversity and abundance of bark beetles (Hindmarch & Reed, unpublished). This information is not disclosed or considered.*

Response: The *Assessment of Ecosystem Components* includes a comprehensive discussion of the disturbance ecology of the Interior Columbia River Basin, including the effects of pathogens and insects and their interactions with management activities, based on literature available at that time (see pages 387+ and 401). The Supplemental Draft EIS landscape effects evaluation (based on Hemstrom et al. 2000) includes discussions about insect and disease activity and the likely effects of treatments. Estimated effects are based on a voluminous published literature and models that incorporated expert subject matter opinion on the interactions of thinning and insect activity. New scientific literature and research will appear and will be used in future applications of the final EIS direction. Unpublished literature is difficult to use because it is often not generally available and may not have been subject to documented scientific peer review.

Comment: *The 21 percent increase in logging levels will put aquatic species at further risk by increasing the level of ground-disturbing activities in watersheds containing critical habitat. Logging would also put wide-ranging terrestrial species at greater risk by further fragmenting habitat. It would be preferable to create a plan with less logging if the goal is to recover and de-list species.*

Response: The objective of the stewardship harvesting proposed in the management direction is to promote forest health. Through thinning and the use of prescribed fire, the management direction is intended to reduce forest fuels, allow fire to be reintroduced, provide habitat for wildlife species, and reduce the threat of wildfire. Where possible, this forest restoration will also provide goods and services to local communities. The primary objective of restoration activities is ecosystem health.

Management direction specifically addresses fish and wildlife habitats that are at risk (for example old forests and riparian areas) and outlines specific direction for threatened and endangered wildlife species. This direction, in conjunction with the step-down processes of Subbasin Review, Ecosystem Analysis at the Watershed Scale, and project level analysis will promote broad-scale ecosystem health objectives while also addressing the localized needs of fish and wildlife species.

According to the effects analysis conducted by the Science Advisory Group (Hemstrom et al. 2000), habitat for fish and many wildlife species would improve under the proposed decision. There is also an anticipated decrease in soil degradation and an increase in the extent of old forests.

Comment: *The plan does not recognize the negative impact of road construction and mechanical timber harvest associated with increased commercial "restoration" logging.*

Response: Restoration is intended to benefit aquatic and terrestrial species, forest health, rangeland health, and watershed health in an integrated manner. For example, when conducting forest restoration, the existing road network will be also addressed. The intent is to identify restoration needs for subbasins and watersheds and determine the most appropriate activities needed in the area and the appropriate timing and location of these activities. The mechanism for setting these priorities includes: Subbasin Review, Ecosystem Analysis at the Watershed Scale, and Roads Analysis. Roads Analysis would systematically and hierarchically evaluate existing road system needs and establish priorities for road restoration and closure.

Guideline R-G3 promotes using the existing road network for access to do restoration activities before removing roads in watersheds where vegetation restoration is a priority. The overall intent of the roads direction is to reduce road-related adverse effects through a variety of techniques including obliteration, closures, and road improvements and to progress, in a staged approach, toward a smaller transportation system that can be effectively and efficiently maintained into the future with minimal environmental impact.

The intent is not to increase the road network to conduct restoration. The intent is to restore areas where there is the greatest opportunity for success and the ability to conduct the restoration in a cost effective manner. While not prohibited, it is unlikely that new roads would be created to conduct restoration work. In the event that the analysis processes indicates that restoration should occur in an area where there would be a need to build a road, the proposed action would have to comply with the Final EIS Objectives and Standards, the Endangered Species Act, and the Clean Water Act and it would also be subject to NEPA analysis.

Comment: *The Supplemental Draft EIS should emphasize and promote active management to promote forest health. The management direction limits opportunities to combine commercial harvest with restoration.*

Response: The management direction promotes the use of prescribed fire and stewardship harvests to promote forest health. There is an estimated 21 percent increase in harvest levels. The objective of these stewardship harvests is to reduce fuel loads, improve stand vigor, promote wildlife habitat, and reduce the threat of wildfire. Where possible, these stewardship harvests would provide economic benefit to local communities.

Comment: *Under Alternative S2, timber harvest levels in all Resource Advisory Councils and Provincial Advisory Committees are expected to increase except in the Eastern Washington Resource Advisory Council area. The Colville National Forest has an overabundance of small diameter, overstocked stands and industrial capability in place to conduct restoration activities in these stands. Why then is the timber harvest levels projected to be lower in this area?*

Response: The stewardship harvest levels are estimated to be lower in the Eastern Washington Resource Advisory Council area because much of the large volume has already been removed from the Colville National Forest and other national forests in the area, leaving only very small trees to be thinned. This results in a smaller volume of timber harvest.

Mature and Old Forest Management

Comment: *The plan does not include substantive protections for vanishing old forest ecosystems and is, therefore, unacceptable as a replacement for Eastside Screens. The agencies acknowledge that old ponderosa pine, western larch and western white pine forests are disappearing, but cutting is allowed in 7/8 of these older forests.*

Response: The management direction promotes an integrated strategy for short-term protection as well as long-term expansion of old forests in the interior Columbia River Basin. The intent of the management direction is to maintain dry and moist old forests of all types; it avoids the diameter limits outlined in the interim Eastside Screens because tree size is diverse across the basin. The size of large trees needed to make up an old forest depends on the species, site, region, and other factors. Snags, downed wood,

decadent trees, and patchy openings are old-forest characteristics which also need protection and maintenance; the management direction also provides strategies for promoting these characteristics.

Insects, disease, and stand-replacing wildfire are all long-term risks to old forests that can be addressed through management activities such as thinning and the use of prescribed fire. Thinning may be needed in the warm dry forests, and to a lesser extent in the moist forest, where the tree densities have increased beyond the long-term carrying capacity of the area. Thinning from below can maintain stand vigor, remove ladder fuels, and allow fire to be put back into the ecosystem without destroying the old forest and without harming the old-forest characteristics.

Even old forests in the low to mid elevations historically saw periodic disturbance (wildfire) which maintained the big trees. Without some periodic disturbance, stresses eventually culminate in episodes of insects and/or disease. The interior Columbia River Basin Ecosystem Management Project direction lays out a strategy which not only protects old forests from management activities in the short term, but also aims to achieve expansion of the old forests types that have declined in the long term.

Comment: *The greatest shortcomings of the T watershed guidance arise from the limited geographic distribution of T watersheds, which overlap heavily with forested wilderness. As such, T watersheds do not constitute a sufficiently large area of habitat needed to facilitate a significant increase in environmental indices that would ultimately lead to overall improvement in population outcomes for most species of concern. The role of T watersheds should be to serve as anchors for a landscape-scale terrestrial conservation strategy.*

Response: T watersheds contain source habitats that are relatively similar in pattern across the landscape compared with historical vegetation patterns and represent the best remaining habitats for the five terrestrial wildlife families that have declined since historic times. There are approximately 14.3 million acres of T watersheds, 4.8 million of which are outside designated wilderness and 9.5 million acres of which are within designated wilderness. The intent of T watershed direction is to maintain and secure these areas that are in short supply and increase the extent and connectivity of these source habitats over the long-term. However, T watersheds alone do not constitute a network of habitats for terrestrial species. They are one piece of the overall strategy to maintain and restore networks of habitat for terrestrial species. Base level direction and restoration direction are also designed to promote the health and resiliency of wildlife habitats across the basin.

Comment: *Helicopter logging is a poor alternative to building logging roads into roadless areas. Not only are helicopters very expensive to operate, helicopter logging can also contribute sediment to streams. Megahan (1987) found that sediment delivery from logging and prescribed burning where 75 foot buffers were provided. Helicopter logging also fragments the forest landscape, dries out the soil, and destroys important wildlife habitat.*

Response: The Supplemental Draft EIS does not specify the management techniques that managers should use to accomplish the management objectives outlined in the strategy. These decisions would be made at the local level, informed by analysis processes and management direction in the Supplemental Draft EIS. Local actions will also comply with the National Environmental Policy Act, which provides the public with the opportunity to review and comment on the proposed action.

Rangeland Health and Management

Rangeland Restoration

Comment: *The full level and extent of restoration required to generate a basin-wide shift in population outcomes of rangeland habitat dependent species should be fully defined and the tradeoffs fully explored. An effort should be made to determine whether emphasizing a different specific set of rangeland subbasins would improve outcomes and still be within an acceptable cost range. Placing more emphasis and management direction for improvement of rangeland habitats should be adopted and incorporated into Alternative S2. You should just get more money to restore these lands.*

Response: The Supplemental Draft EIS recognizes that the rates and types of restoration activities will increase with additional funding, but the overall strategy is not directly budget sensitive. The direction is proposed to be accomplished at whatever the funding level is determined to be (See Chapter 4, Analysis of Implementation Costs and Outputs section).

For the Final EIS, the Scientific Advisory Group (SAG) sensitivity analyses found that an additional

investment of 20 to 39 million dollars and reducing adverse livestock grazing effects could make a difference in the projected species environmental outcomes on Forest Service- and BLM-administered lands. The SAG further concluded through these analyses that the two variables, investment in restoration and reduction in adverse livestock grazing effects, are intertwined and would not be successful in influencing outcomes without concomitant application of both. Additional investment in restoration contributes to slowing the decline of rangeland habitats only *if* it is accompanied by livestock management that reduces the adverse effects of livestock grazing. Conversely, changes in livestock management that reduces adverse effects must be accompanied by investment in restoration to be effective in slowing habitat declines.

Comment: *We are concerned about the predicted continued decline of grassland ecosystems and what seems to be little attention or priority given to them especially those areas not identified as a restoration priority.*

Response: Rangeland source habitats that have declined substantially from historical to current periods are targeted for restoration emphasis in the Final EIS. In addition, there is substantial base-level and restoration direction in the Final EIS that focuses on sustaining rangeland habitats. Specifically, the rationale statement for Objective R-O2 addresses restoration of the dry grass potential vegetation group. Restoration direction applies wherever restoration activities are planned to occur, not only in high priority to restore subbasins. Some areas were not identified as high priority subbasins because of their high costs and low success (opportunity) for rehabilitation.

Comment: *The plan does nothing to protect the rapidly disappearing shrub-steppe habitat. This vegetation type has declined 80 percent and management needs to take drastic steps to protect it. The causes of the increased fragmentation and loss of connectivity within and between blocks of habitat have not been honestly discussed.*

Response: Direction in the Final EIS emphasizes the restoration, management, and maintenance of shrub-steppe habitat. Objectives B-O32 and B-O33 discuss managing and maintaining this vegetation type to meet the habitat needs of Terrestrial Families 11 and 12. Objectives R-O2 and R-O10 provide direction for the restoration of shrub-steppe habitat. The causes of fragmentation and loss of connectivity are discussed in the *Scientific Assessment*, and the direction is focused on addressing these issues.

Comment: *In the Supplemental Draft EIS it appears that the majority of the restoration efforts will be in forested watersheds. More rangeland identified for restoration would receive a great deal of support. The arid lands do not receive priority because techniques for restoration are not well developed.*

Response: The proposed decision includes integrated management direction that stresses the interconnections between the components of landscape dynamics, terrestrial source habitats, aquatic species, riparian and hydrologic processes, social-economics, and tribal governments. The intent of broad-scale high restoration priority subbasins is to concentrate restoration efforts to make these activities more efficient and effective. These subbasins were identified based on risk to aquatic and terrestrial species and their habitat, opportunities to reduce those risks, and other criteria described in the Supplemental Draft EIS, Chapter 3, pages 92-93. Identifying more rangeland subbasins for restoration would require increases in funding to restore these lands.

Livestock Grazing Effects

Comment: *We are concerned about livestock grazing and changes in the rangeland ecosystem such as soil disturbance, reduced cover of biological crusts, weed invasions, conifer encroachment, and changing fire frequencies.*

The Supplemental Draft EIS lacked discussion of the benefits of livestock grazing to the entire environment or the environmental impact if grazing were eliminated or limited in the project area.

Response: The proposed decision includes direction related to management of livestock grazing, soil disturbance, biological crusts, weed invasions, conifer encroachment and changing fire frequencies. These activities and their effects are discussed in Chapters 2 and 4 of the Supplemental Draft and Final EISs.

Comment: *A 10 percent reduction in Animal Unit Months (AUMs) is insufficient to achieve the goal of recovering damaged ecosystems.*

Response: The intent of direction in the proposed decision is to restore sustainable vegetation conditions and habitat. The Science Advisory Group estimates that a 10 percent reduction in Animal Unit

Months would result from long-term implementation of the direction, but no specific reduction is being proposed. The allocation of Animal Unit Months of forage for livestock will be made by local administrative units at the individual land use plan or activity plan level, using fire-scale, local data and conditions.

Comment: *There is a discrepancy between the information presented in Map 2-36 and in the BLM publication "Public Land Statistics 1999." The BLM data show 65-75 percent of rangelands are in fair condition where as ICBEMP says 65-70 percent have low ecological integrity.*

Response: The two documents have different purposes and different terminology. These are two different measures of rangeland attributes, and they are not mutually exclusive. The condition rating relates to the current status of the lands, while ecological integrity relates to the overall sustainability of the lands.

Comment: *The greatest degradation of arid lands occurs as a result of livestock grazing during periods of drought. This issue is not addressed in the Supplemental Draft EIS for management purposes.*

Response: In the Supplemental Draft EIS, Chapter 3, page 57, Guideline B-G15 specifically addresses management of grazing practices to be considered during periods of drought. The implications of grazing during drought periods are disclosed in the Supplemental Draft EIS in Chapter 2, page 242.

Comment: *Bunchgrasses did not evolve under heavy grazing pressure from large herbivores and are very sensitive to grazing. This issue is not addressed in the Supplemental Draft EIS for management purposes. None of the alternatives are adequate for restoration of the grassland communities to the point where they would support historical populations of grassland species.*

Response: The Final EIS direction emphasizes restoration of grassland vegetation types including bunchgrasses. Changes in historical to current grazing patterns are disclosed in the Supplemental Draft EIS (Chapter 2, pages 236-242). Objective B-O33 provides direction for management of habitat for Terrestrial Family 12, (grassland species). Objective R-O2 addresses the dry grass potential vegetation group, which includes grasslands. Objective R-O21 specifically addresses restoration of rangeland composition and structure for terrestrial source habitat.

Comment: *It is important to identify areas that are unsuitable for livestock grazing and to protect them with a management standard. These areas are unsuitable because they may have never been grazed, or they may be riparian areas; habitat for threatened, endangered, or sensitive species; or large blocks where natural succession can be observed. Use of the term "suitable" may result in prompting the question of "what standards are you using to determine suitability for livestock grazing"?*

Response: Determining areas "suitable" or "unsuitable" for livestock grazing requires fine-scale data that is not available at the basin level. Final EIS direction sets outcomes to be achieved. How these outcomes will be achieved depends on fine-scale conditions and analysis.

Rangeland Vegetation Composition and Structure

Comment: The objective for rangeland seeding should include something about meeting the designated land and resource objectives for any particular piece of land; for example, crested wheat may meet the objective of B-O35 yet be deficient in meeting the overall intent.

Response: Objective B-035 was combined with B-034 in the Final EIS. The rationale statement was clarified. Rationales are intended to be used in conjunction with the objective to ensure that the intent of the objective is achieved.

Comment: *The Supplemental Draft EIS acknowledges that ecological interrelationships are complex and difficult to specifically identify, yet Chapter 3, page 117, of the Supplemental Draft EIS states (incorrectly) that juniper expansion can be caused solely because of change in climate and that expansion may be separated from other ecological causes.*

Response: Chapter 3, Page 117, of the Supplemental Draft EIS states that the increase in juniper density is attributable to a fire suppression and excessive livestock grazing either singly or in combination.

Biological Crusts

Comment: *How can grazing be compatible with biological soil crusts?*

Response: Management direction in Chapter 3 of the Supplemental Draft EIS (Objectives B-O9, B-

O10, R-O11, and Guideline B-G15,), requires that land uses such as livestock grazing should provide for adequate cover of biological crusts (for example, by assuring that soil stability is maintained). The rangelands direction the Forest Service and BLM would implement as a result of the Interior Columbia Basin Ecosystem Management Project decision specifically addresses grazing management and maintenance of biological soil crusts, as it relates to cover. Generally, grazing during times of wet conditions such as spring or winter is compatible with maintaining soil crusts.

Comment: *The Supplemental Draft EIS provides no standards to prevent loss of biological crusts and does not provide a full discussion on the benefits of crusts to soil stabilization and prevention of weed seed gemination. There is also no discussion of the internal ICBEMP research on crusts; this is region-specific research and discusses the known benefits of crusts.*

Response: The proposed decision includes Objective R-O-11 (manage to allow restoration of crusts where the development of crust potential is high), Objective B-O-9 (manage vegetation to maintain crusts), and Objective B-O10 (provide adequate crust cover to allow functions and processes of arid lands ecosystems). Effects on biological crusts are disclosed in the Supplemental Draft EIS in Chapter 2, pages 96-97, and in Chapter 4, pages 77-79.

Noxious Weeds

Comment: *The Supplemental Draft EIS attributes the current weed situation to grazing pressures placed on rangelands in the late 1800s and early 1900s. Yet the EIS describes weeds spreading at an exponential rate today. This is due primarily to livestock grazing that is occurring today.*

Response: Chapter 2 of the Supplemental Draft EIS (pages 242-251) discusses historical and current factors related to noxious weed invasion and expansion. Final EIS direction includes management of livestock to achieve objectives. The exponential rate of noxious weed infestation is expected to continue with or without livestock grazing.

Comment: *There should be stronger language for prevention and control of noxious weeds. Suggestions range from ignoring cheat grass because it is so wide spread, to limiting or stopping all management activities that allow soil disturbance. The role of disturbance in ungrazed systems and its relation to invasion of noxious weeds is an issue.*

Response: Direction in the Final EIS emphasizes the need for prevention and control of noxious weeds through the use of integrated weed management and other tools. It is recognized that restoring cheatgrass-dominated sites will be extremely difficult. However, there is greater opportunity to limit the spread of cheatgrass and prevent the loss of native habitats. If cheatgrass is ignored then there is less opportunity to prevent the continued loss of habitat for rangeland species. Specifically, Guideline B-G18 of the Supplemental Draft EIS focuses on prevention of invasion of new invaders by minimizing soil disturbance.

Comment: *Given the vast extent of weeds across the basin in both rangeland and forested ecosystems, there is a need for prioritization of treatment. More priority should be placed on the forested ecosystems or threatened, endangered, or proposed aquatic species habitat or when the weeds first appear than is currently emphasized in the Supplemental Draft EIS.*

Response: Part of base-level direction for threatened, endangered, or proposed species establishes a hierarchy of direction so that management of these species takes priority. Additional information on the management intent is found in the Supplemental Draft EIS Chapter 3, pages 84-85 as it relates to assessing risks and opportunities for these species. Other standards include B-S14, management of A1/A2 subwatersheds and terrestrial source habitats in T watersheds, which are given the highest broad-scale priority.

Comment: *An appropriate management strategy would be to identify weed-free areas and maintain this status as a managed priority.*

Response: Objective B-O11 deals with maintenance of weed-free plant communities.

Comment: *A full range of opinions was expressed on the issue of using herbicides to control noxious weeds. Some feel that stronger or more specific language is needed in the Record of Decision to direct land managers to use the full array of weed management tools, including herbicides, to aggressively tackle the invasion. Other comments suggest that the use of chemicals would do more harm than good.*

Response: Management direction for noxious weeds is addressed in Objective B-O11; Standards B-S13,

14, and 15; and Guidelines B-G18 to 26. Managers thus would have a full range of options. Specifically, Objective B-O11 and Standard B-S13 require use of an integrated weed management strategy which could include the use of chemical options. The specific techniques used would depend on fine-scale circumstances. Given the magnitude of the problem and the rates of growth of noxious weeds infestations, it is doubtful that reduction in the area of noxious weeds could be achieved without the use of herbicides.

Comment: *How is the expected increase in timber harvest and road-building activities going to achieve the objective of eradicating or preventing the spread of noxious weeds in native plant communities?*

Response: Integrated weed management strategies should address all aspects contributing to the spread of noxious weeds. Direction in the Final EIS should lead to a reduction in total road miles, over time.

Comment: *Seeding to control erosion or prevent the introduction of exotic species should only be done with native species or sterile plants that are later replaced by native plants.*

Response: Alternative S2 direction is to favor use of native plants. Guideline R-G5 and Standard R-S1 provide direction regarding use of native seed. In some dry areas, such as salt desert shrub, seeding native plants has not been successful. However, perennial exotic species, such as crested wheatgrass, have had some success in being established in low precipitation areas. If the only choice to eliminate cheatgrass or medusa head and to reduce fire frequency is to plant exotic perennials, then this tool is intended to be available to the land manager.

Rare Plants

Comment: *What are "rare plant communities?" Provide a summary of what plant communities have been identified as rare or unique.*

Response: Rare plant communities, as identified in the *Scientific Assessment*, are plant communities that have been identified in consultation with State Natural Heritage Programs and Conservation Data Centers, based on the work of Bourgeron and Engelking (1994). These are communities (including potential vegetation types, community types, and plant associations) that are defined as globally rare and either critically imperiled and vulnerable to extinction or very rare and restricted in range. They may be inherently rare because of a unique set of abiotic features, or they may once have been common but are now reduced because of management or land use changes. For example, the Palouse grasslands have been reduced to a few remnant stands because of agricultural land conversions.

Aquatic - Riparian - Hydrologic Health and Management

Aquatic - Riparian - Hydrologic Strategies

Comment: *The preferred alternative lacks clear management direction to replace the interim aquatic strategies. The final alternative should offer equivalent or greater protection than the interim strategies. Modifications were made to the Riparian Conservation Area management objectives and standards to provide greater clarity. The Record of Decision will describe how the agencies will transition from the interim aquatic strategies to the selected alternative.*

Response: The analysis of effects for the three alternatives in the Supplemental Draft EIS showed that the preferred alternative is expected to be more effective, in the long term, at maintaining or improving aquatic habitat capacity, water quality, and riparian ecological processes than continuation of the current interim aquatic direction. Application of the hierarchical step-down analysis requirements in the preferred alternative (as described in Chapter 3, pages 40-49, of the Supplemental Draft EIS) is also expected to more adequately incorporate hydrologic function and watershed process considerations into decision-making than the current interim direction.

Comment: A detailed comparison between the interim aquatic strategies and the aquatic component of the proposed decision should be provided in the Final EIS.

Response: Chapter 3 of the Supplemental Draft EIS and Final EIS contains the management direction for both the interim aquatic strategies and the selected alternative. A separate comparative analysis crosswalk was prepared and will be included in the project Administrative Record after the Record of Decision.

Comment: *Greater clarity should be provided in the Final EIS about the process to validate A1/A2 designations and*

the relation between Riparian Conservation Areas, sediment delivery areas, and Watershed Condition Indicators.

Response: Between the release of the Supplemental Draft EIS and the Final EIS, field units within the planning area updated the widely distributed salmonid status information. The intent to update this information was disclosed in the Supplemental Draft EIS. The project used this information in delineating the A1/A2 subwatersheds in the Final EIS. Appendix 18 included in the Final EIS, describes the process for modifying the A1/A2 subwatersheds after the Record of Decision.

Comment: *The phrase "maintain or improve" as used in the aquatic/riparian/hydrologic objectives is vague and open to varying interpretation. Greater clarity should be provided in the Final EIS.*

Response: Greater clarity has been provided for this phrase as used in management objectives for Riparian Conservation Area management and A1/A2 subwatersheds in Chapter 3 of the Final EIS.

Comment: *The phrase "maintain or improve" as used in the aquatic/riparian/hydrologic objectives is vague and open to varying interpretation. Greater clarity should be provided in the Final EIS.*

Response: Greater clarity has been provided for this phrase as used in management objectives for Riparian Conservation Area management and A1/A2 subwatersheds in Chapter 3 of the Final EIS.

Comment: *Special emphasis and priority watersheds identified in the Biological Opinions receive less protection in the preferred alternative. Greater protection should be provided to these areas. Many elements of the preferred alternative work together to create a system of protection that is expected to be equal to or greater than that contained in the three existing Biological Opinions.*

Response: Many elements of the preferred alternative work together to create a system of protection that is expected to be equal to or greater than that contained in the three existing Biological Opinions. Examples of these elements include: application of the standards, guidelines and objectives; the system of A1/A2 subwatersheds; and high restoration priority subbasins. Until Watershed Condition Indicators are implemented, the interim use of the U.S. Fish and Wildlife Service Matrix of Diagnostics/Pathways and Indicators and the National Marine Fisheries Service Matrix of Pathways and Indicators will also provide assurances. The Biological Opinion for the ICBEMP Record of Decision will replace the three existing Biological Opinions; and Endangered Species Act consultation will help determine what, if any, additional elements of the existing Biological Opinions are incorporated into the Record of Decision.

Comment: *The preferred alternative did not identify quantitative and accountable fish habitat and water quality objectives that are based on the biological needs of salmon.*

Response: The preferred alternative directs the federal agencies to develop an integrated suite of qualitative and quantitative aquatic, riparian, and hydrologic condition measures (WCIs) to help monitor and protect the health of a variety of aquatic- and riparian-dependent species. Until WCIs have been developed and implemented, a modified matrix has been developed to assist field units in determining the consistency of their activities with aquatic, riparian, and hydrologic standards and objectives in the Record of Decision. (See Final EIS, Appendix 9 for more information about this matrix). The modified matrix is a multi-scale diagnostic tool that will evaluate site-level projects in the context of conditions at the subwatershed or watershed scale. However, this diagnostic tool cannot be used alone to make Endangered Species Act determinations.

The modified matrix is a compilation of the existing U.S. Fish and Wildlife Service (USFWS) Matrix of Diagnostics/Pathways and Indicators and the National Marine Fisheries Service (NMFS) Matrix of Pathways and Indicators. The modified matrix was developed by a task team composed of regulatory and land management technical specialists working under the Interagency Implementation Team (IIT) established to streamline implementation of PACFISH, INFISH, and the Northwest Forest Plan (see Appendix 9 of the Final EIS for more information). The WCIs and the modified matrix are both considered to be accountable and quantitative objectives that, when combined with other direction in the proposed decision, are intended to address the needs of salmon and other aquatic species at risk at a basin-wide scale.

Comment: *The preferred alternative should be revised to be consistent with the* Wy-Kan-Ush-Mi Wa-Kish-Wit *aquatic conservation and restoration strategy developed by the Columbia River Intertribal Fish Commission.*

Response: The EIS Team worked with the Tribal Liaison Group and a Tribal/Executive Screening Committee Working Group (see side bar discussion, in Chapter 4, page 4-175 of the Supplemental Draft EIS) to collaborate with 22 tribal governments in the project area and to resolve tribally identified basin-wide issues. The Columbia River Tribes' salmon restoration plan was considered during development of the preferred alternative through the involvement of these collaborative groups. Many of the principles and objectives for management of resources and associated species contained in the proposed decision are consistent with the *Wy-Kan-Ush-Mi Wa-Kish-Wit* strategy, and were included in ICBEMP direction.

Aquatic and Riparian Processes and Management

Comment: *Standard B-S42 (sediment delivery influence area) is harder to apply on rangelands than on forested areas because of different topography and land uses.*

Response: The steepness of adjacent side slopes as well as certain soil characteristics (such as surface texture) and ground cover can influence sediment delivery. To implement Standard B-S42, field units can use either the relationship displayed in Figure 1, Appendix 9, of the Supplemental Draft EIS (which focuses on slope steepness), or locally developed sediment delivery relationships to identify the sediment delivery influence area. Language has been added to the standard to highlight this point. It is expected that field units will develop and use appropriate sediment delivery relationships when applying this standard in rangelands. The *Assessment of Ecosystem Components* has additional information about sediment delivery relationships (Quigley and Arbelbide 1997).

Comment: Some commentors feel that management direction for Riparian Conservation Areas does not contain enough specifics to prevent degradation to riparian areas from uses such as livestock grazing, while others feel that the management direction is overly restrictive and adverse impacts would occur to uses such as recreation.

Response: The Riparian Conservation Area management direction requires existing land uses, facilities, and actions (including livestock grazing and recreation) within or affecting Riparian Conservation Areas to be modified, discontinued, or relocated (subject to existing rights) if they are adversely affecting elements that are critical to the function of riparian systems. Because the Riparian Conservation Area objectives and standards in the Final EIS are designed to be most appropriate at a watershed or broad scale, not at the fine scale, specific prescriptive measures needed to address adverse impacts must be developed though application of the step-down analysis and through local-level National Environmental Policy Act analysis. This approach allows the broad direction in the Final EIS to be applied on a site-specific basis.

Comment: *Management direction related to fire retardants (Standard B-S38) is not workable because aerial applications can't be controlled so precisely.*

Response: This standard has been modified in the Final EIS to direct that delivery of chemical retardant, foam, etc., to surface waters be avoided (rather than prohibited). In most situations, application of fire retardants can be conducted in a manner that avoids delivery to surface waters.

Comment: *Some commentors believe that Riparian Conservation Areas (RCAs) should be removed from the suitable timber base. Others are concerned about the economic and ecological impacts of removing Riparian Conservation Areas from the suitable timber base.*

Response: Timber production estimates in the Final EIS were based on assumptions about the magnitude of timber harvest resulting from implementation of broad-scale restoration-related goals and objectives. These estimates will be refined by each national forest and BLM district when they adjust their land use plans to conform with the Record of Decision. RCAs should not be included in the suitable timber base used to calculate allowable sale quantity because RCA delineations are not prescribed distances; rather, they will vary based on ecological and geomorphic factors. Also, the level of timber harvest occurring in Riparian Conservation Areas is expected to be highly variable. Much of the timber that may be removed from RCAs is expected to be small-diameter trees that are usually not economical to harvest using the low-impact methods which would be used in these areas. These factors, among others, make inclusion of RCAs in models of timber production inappropriate.

Comment: *The Supplemental Draft EIS did not properly interpret or apply Proper Functioning Condition.*

Response: Proper Functioning Condition (PFC) is the minimum threshold for management of riparian-wetland areas. PFC provides the physical and ecological foundation for the health of these systems. Once PFC is achieved, the methodology assumes that vegetation community succession beyond PFC will occur to achieve a desired plant community. Individual BLM and Forest Service administrative units develop specific riparian-wetland objectives to supplement this baseline requirement. It is not within the scope of this EIS to examine whether PFC is being properly applied at the field level; instead, the results of PFC evaluations are presented and used in the Final EIS as part of a larger suite of information.

Comment: *The Supplemental Draft EIS Alternatives S2 and S3 contain no measurable standards to maintain/restore fish habitat. There is no monitoring plan included in any of the alternatives. What are the Riparian Conservation Area management objectives and how are they measured? Without standards or monitoring it is impossible to determine the condition of a watershed or evaluate the impacts of activities conducted in it.*

Response: The preferred alternative directs the federal agencies to develop an integrated suite of qualitative and quantitative aquatic, riparian, and hydrologic condition measures (WCIs) to help monitor and protect the health of a variety of aquatic- and riparian-dependent species. Until WCIs have been developed and implemented, a modified matrix has been developed to assist field units in determining the consistency of their activities with aquatic, riparian, and hydrologic standards and objectives in the Record of Decision. (See Final EIS, Appendix 9, for more information about this matrix). The modified matrix is a multi-scale diagnostic tool that will evaluate site-level projects in the context of conditions at the subwatershed or watershed scale.

The modified matrix was developed by a task team composed of regulatory and land management technical specialists working under the Interagency Implementation Team (IIT) established to streamline implementation of PACFISH, INFISH, and the Northwest Forest Plan (see Appendix 9 of the Final EIS for more information). The WCIs and the modified matrix are both considered to be accountable and quantitative objectives that, when combined with other standards, objectives, and guidelines in the proposed decision, are intended to address the needs of salmon and other aquatic species at risk at a basin-wide scale.

RCA Management

Comment: *It is difficult to follow or translate Riparian Conservation Area (RCA) direction. Please clarify the direction for changing or delineating RCA widths. The RCA delineation concept contains insufficient detail in the Supplemental Draft EIS about criteria, factors, scale, and other key information about the process. Please provide better definition and assurance that RCA boundary adjustments will be scientifically sound and complete.*

Response: The discussion of Riparian Conservation Area delineation has been clarified in the Final EIS. During Ecosystem Analysis at the Watershed Scale or through appropriate planning processes, interim RCA criteria would be replaced with ecologically appropriate criteria. The rationale for final RCA delineation criteria will be presented through the appropriate National Environmental Policy Act decision-making process for local projects, after interagency and intra-governmental collaboration occurs. On-the-ground delineation of RCAs would be conducted by land managers with the expertise or training that enables them to identify riparian functions and processes and correctly apply them to local site conditions.

Comment: *The delineation of and process for changing Riparian Conservation Areas provides less protection for streams and aquatic habitats than is needed. The Final EIS definition of Riparian Conservation Area must include a minimum of 300 feet on perennial streams.*

Response: To be effective, Riparian Conservation Area delineation must adjust for widely variable ecological and geomorphic site characteristics that exist throughout the project area. Through analysis, the EIS Team determined that prescribing a specific Riparian Conservation Area width value was not appropriate. Instead, the Riparian Conservation Area direction focuses on outcomes that maintain or restore natural riparian and wetland structure and function. This approach, when applied through the step-down process, is considered the best way to apply the broad-scale information and objectives in the preferred alternative to on-the-ground conditions.

Watershed Condition Indicators

Comment: *The EIS should include more information about the basic purpose, design, and application of Watershed Condition Indicators (WCI). Until this information is provided, the effects of the preferred alternative cannot be fully understood. The WCIs should*

be promptly developed and a process identified for making the transition from the use of Riparian Management Objectives to WCIs.

Response: The Supplemental Draft EIS presumed that WCIs would be developed within two to three years after the signing of the Record of Decision. However, since the Supplemental Draft EIS was issued it became apparent that additional information is needed to support the development, application, and use of the WCIs. To address these needs, the EIS Team prepared an Action Plan which was reviewed by a team of technical specialists representing each of the Interagency Executives. This Action Plan: (1) identifies a single suite of indicators; (2) develops methods to determine the ranges of values for the indicators and guidelines for applying values in project planning; and (3) assigns ranges of values to indicators while considering subregional variation. The requirement to apply WCIs would come into effect after the WCI strategy has been fully developed and tested.

Comment: *The Watershed Condition Indicators (WCI) should not be fixed targets. Rather, they should acknowledge the variability of habitat capabilities based upon factors such as geology and stream channel morphology, and they should be receptive to site-specific modification or adjustments.*

Response: The WCIs are based on providing a similar monitoring and evaluation strategy to ensure project consistency with Aquatic Conservation Strategy (ACS) objectives under the Northwest Forest Plan. The WCIs are linked to the aquatic, riparian, hydrologic, and riparian-associated terrestrial species management objectives. The WCIs consist of a suite of integrated indicators that represent important ecological processes that create and maintain aquatic and riparian habitat conditions. Each indicator would have value ranges (not fixed targets) defining "functioning", "functioning at risk", and "non-functioning" conditions. The single suite of indicators would be consistently applied across federally managed lands within the project area. To resolve concerns raised about the high degree of variability in the landscapes across the project area, the ranges of values for each of the indicators will initially be developed at the sub regional level, with the ability to refine the ranges of values using finer-scale data and local knowledge.

Comment: *The Watershed Condition Indicators (WCI) indicators should address terrestrial and riparian habitat elements.*

Response: A primary purpose of the WCIs is to evaluate and monitor the functionality of watersheds in the project area. To do this, values would be assigned to channel, riparian (aquatic and terrestrial), and upland (aquatic and terrestrial) indicators at subregional scales based on relationships among key natural disturbance processes and biological, physical, and chemical characteristics of subwatersheds or watersheds. To the extent that habitat elements contribute to these relationships, they would be included. In addition, one intended use of the integrated suite of WCIs is in the National Environmental Policy Act process to evaluate if management activity maintains, or leads to attainment of, the aquatic, riparian, hydrologic, and riparian-associated terrestrial species management objectives at the subwatershed or watershed scale, in the long term. If a certain indicator(s) highlights a concern, the activity would be designed to alleviate the concern, or rationale and documentation to support why the activity is needed to achieve aquatic, riparian, hydrologic, or riparian-associated terrestrial objectives would be provided.

Comment: *Development of the Watershed Condition Indicators (WCI) could result in a major workload. In addition, the information required to complete the matrix and make a determination on the condition does not currently exist on many rangelands. These two factors affect the feasability of this direction.*

Response: The amount of additional work for field units to implement WCIs will vary. When first applying WCIs at the local level, field units would focus on assigning appropriate ranges of values for the indicators. This is necessary because the default values were determined at the subregional scale. The Action Plan (see earlier comment) would assist the implementation of WCIs by providing guidance on methods for determining the ranges of values for the indicators and on assigning ranges of values to indicators.

Comment: *The EIS should provide more direction regarding the use of Watershed Condition Indicators (WCI) during application of the step-down process and in decision making and risk management. The PACFISH*

and INFISH strategies reduced risk to sensitive species by avoiding degradation of measured habitat indicators and using risk-adverse standards for management activities.

Response: Measurable indicators (in the short term, the matrices, and eventually WCIs) in combination with management direction will be the tool used in National Environmental Policy Act (NEPA) analysis and decision making to address the link between proposed actions and the desired outcomes articulated in the EIS. The WCIs, in combination with other assessments and cumulative effects analyses—including NEPA, Ecosystem Analysis at the Watershed Scale, and Subbasin Review— would be used to determine if proposed activities are consistent with and/or contribute toward achievement of the aquatic, riparian, and hydrologic objectives in the Record of Decision.

Comment: *The project is proposing interim use of the U.S. Fish and Wildlife Service Matrix of Diagnostics/ Pathways and Indicators and the National Marine Fisheries Service Matrix of Pathways and Indicators (matrices) until Watershed Condition Indicators (WCI's) are implemented. These matrices have been useful tools in evaluating and designing federal actions to meet minimum consultation requirements (such as, assisting in determinations of jeopardy and "take" of species). Please clarify how these matrices and related guidance will be applied. Specifically, how will "refinement" of the matrices be accomplished? Will there be interagency collaboration on their refinement and application?*

Response: Until WCIs have been developed and implemented, a modified matrix has been developed to be used to assist field units in determining the consistency of their activities with aquatic, riparian, and hydrologic standards and objectives in the Record of Decision. (See the Final EIS, Appendix 9 for more information about this matrix.) The modified matrix is a multi-scale diagnostic tool that will evaluate site-level projects in the context of conditions at the subwatershed or watershed scale. However, this diagnostic tool cannot be used alone to make Endangered Species Act effect determinations.

The modified matrix is a compilation of the existing U.S. Fish and Wildlife Service Matrix of Diagnostics/ Pathways and Indicators and the National Marine Fisheries Service Matrix of Pathways and Indicators. The modified matrix was developed by a task team composed of regulatory and land management technical specialists working under the Interagency Implementation Team (IIT) established to streamline implementation of PACFISH, INFISH, and the Northwest Forest Plan.

Water Quality and Quantity

Water Quality

Comment: *Many comments were received on the water quality management direction and the Forest Service and Bureau of Land Management Protocol for Addressing Clean Water Act Section 303(d) Listed Waters (Protocol). Most comments support the use of the Protocol. Some request more information about what the Protocol is and how it will be applied. Other comments refer to non-achievable timeframes and conflicting management direction with state agencies, which have responsibility and authority for developing Total Maximum Daily Loads (TMDL). Some comments express concern about the standard requiring application of the Protocol where any land management activity has the potential to affect the parameter(s) for which the waterbody was listed.*

Response: In 1999 the Protocol was adopted by the Forest Service, the Bureau of Land Management (BLM), and the Environmental Protection Agency for use in Oregon, Washington, Idaho and Montana. Therefore, application of the Protocol to the project area is necessary and appropriate.

The Protocol acknowledges that it is a state's responsibility to develop its 303(d) lists and establish a TMDL for the parameter(s) causing waterbody impairment. The Water Quality Restoration Plans developed and implemented by the Forest Service and the BLM under the direction of the Protocol outline the specific actions by which the agencies will meet TMDL requirements on lands under their jurisdiction.

The Protocol is an iterative document and it is currently being revised to address various issues that have arisen with its implementation. The goal of addressing all impaired waterbodies on Forest Service- and BLM-administered lands within five years is one of the issues being reviewed. The agencies are committed to working collaboratively with state agencies and tribes to set priorities and timelines for addressing listed waterbodies.

The standard requiring application of the Protocol has been revised to read: "Apply the 303(d) Protocol

or an alternate analytical process agreed to by the interagency partners where any land management activity has the potential to affect the parameter(s) for which the waterbody was listed".

Comment: *The preferred alternative does not provide adequate, enforceable standards to protect and restore water quality and aquatic resources. There are no specific time frames or standards required for restoration or recovery for water quality and aquatic resources, only objectives, which are not enforceable.*

Response: The management direction in the Final EIS is intended to result in desired broad-scale outcomes, and therefore does not prescribe site-specific standards. Application of the 303(d) Protocol or other approved hydrologic assessment methods would provide the context and direction for protecting, maintaining, and restoring water quality.

Restoration priorities for water quality have been identified within the high restoration priority subbasins, which include timeframes for completing Subbasin Review and Ecosystem Analysis at the Watershed Scale. In addition, there is management direction that requires water quality restoration activities be completed consistent with state- and tribe-established schedules.

Comment: *Although the ability of streams to support fish varies widely, this does not mean that the needs of fish are different from stream to stream or that habitat standards should be weakened. It is not acceptable to fill streams with more sediment; streams have little, if any, capacity to cope with additional sediment. We shouldn't be doing anything in the way of management activities to make things worse.*

Response: The hierarchical management direction, including the step-down analysis process, provides a process for identifying current conditions and issues with resource values, which could include sediment issues in some streams in the project area. The hierarchical analyses provide the tools to identify relationships between natural geologic processes and sediment from past management activities, and help understand the scope of existing problems and recommend possible solutions.

Comment: *The standard requiring application of the 303(d) Protocol where any land management activity has the potential to affect a listed waterbody could delay state applications for access across federal lands. Please clarify whether this standard requires the federal agencies or the state to complete a Water Quality Restoration Plan in order to obtain access across federal lands in a 303(d) listed watershed.*

Response: Although the Protocol does provide agencies with the ability to proceed with activities in watersheds with listed streams before a Water Quality Restoration Plan is completed, the analysis of any proposed activities should address how the project(s) would influence the water quality parameters that are the cause of beneficial use impairment. Because each state may use different approaches for satisfying requirements, federal land management agencies would coordinate their activities with the appropriate state agency.

Comment: *The EIS presents erroneous conclusions regarding the major causes of temperature increases in streams. For example, the Sawtooth National Recreation Area (SNRA) has between 92 percent and 99 percent old-growth character in its forest and relatively little grazing, logging, or mining disturbance. Yet, every river leaving the SNRA is on the 303(d) list for excessive temperature.*

Response: The data, assumptions, and analyses in the EIS and supporting documents use the best available scientific information. Existing stream temperature data are quite variable and primarily fine scale. This information was assembled into a form usable at the broad scale, the resulting findings are broad in nature. Site-specific information, such as that provided in the comment, is best used in the step-down process to identify and design fine-scale management opportunities.

It is not within the scope of the project to address the validity of a state's 303(d) list. It is each state's responsibility to develop its 303(d) list and criteria for de-listing. The BLM and the Forest Service share information with states about water quality conditions on federal lands for the state's use in the listing/de-listing process.

Comment: *The Source Water Assessment Program (SWAP) provisions of the 1996 amendments to the Safe Drinking Water Act place certain obligations on federal land management agencies. Under the SWAP requirements, federal agencies that administer lands serving as source areas for drinking water supplies must collaborate*

with state and local communities to delineate and protect source water areas and inventory all potential sources of contamination. Timber harvesting, road building, weed/insect control, grazing, and recreation can affect the quality of waters that serve as drinking water supplies. More information should be included in the EIS about the BLM's and Forest Service's efforts to fulfill their responsibilities under the SWAP, and the EIS should map the location of drinking water supply watersheds in the project area.

Response: The intent of the outcome-based management direction in the preferred alternative is to restore and maintain hydrologic processes and to prevent pollution. These are fundamental steps toward ensuring that water quality on federally administered lands will support designated beneficial uses, including drinking water. The preferred alternative also directs federal land management agencies to initiate collaboration with state agencies to optimize efforts and ensure consistent approaches when addressing water quality concerns.

The legal requirements to develop water quality programs and enforce water quality standards reside with individual states, and those programs vary from state to state within the project area. The implementation of state-developed, EPA-approved water quality programs by federal land management agencies is best accomplished using Memoranda of Understanding that are collaboratively developed by all stakeholders in the area of concern. Generally, the role of the federal land management agencies is to provide technical assistance and data to states or, as appropriate, directly participate in a state's process to implement the SWAP.

Water Quantity

Comment: *I'm concerned that Objective B-O8 in the preferred alternative to "sustain hydrological processes characteristic of the geoclimatic setting through management actions that resemble effects of natural disturbance processes" will be used by the federal agencies to require the owners of small hydroelectric dams to change the way they operate their projects.*

Response: The management direction in the preferred alternative is based on providing desired outcomes. New management activities or current management activities subject to valid existing rights would be designed or mitigated to achieve these desired outcomes.

The mitigation and design features that may be required for individual projects will be determined at a fine- scale using the step-down process.

Comment: *The Summary of Conditions and Trends in the Supplemental Draft EIS states that changes in water quantity on federally-administered lands have probably been caused by road construction and changes in vegetation due to silvicultural practices and excessive livestock grazing pressure. Yet, the EIS presents no quantitative analysis to support these assertions. Please explain what data or scientifically rigorous studies were used to support these determinations.*

Response: The *Scientific Assessment* (Quigley and Arbelbide 1997) notes that silvicultural activities and road construction do not change the total amount or quantity of water within a watershed or drainage, but they can alter the timing and duration of peak flows. In addition, roads can increase the efficiency of water delivery directly to streams. The Forest Service recently released a comprehensive synthesis of scientific information concerning the effects of forest roads (Gucinski and Lugo 2000) which supports the information presented in the Supplemental Draft EIS.

Water Rights

Comment: *The EIS should recognize hydroelectric power generation as a beneficial use of water in the project area.*

Response: Beneficial uses are designated by each state and may consist of any use which may be made of water. These uses vary by state and can include (but are not limited to): domestic water supplies, industrial water supplies, agricultural water supplies, navigation, recreation in and on the water, wildlife habitat, hydroelectric power generation, and aesthetics. The list of beneficial uses included in the definitions section of Chapter 2 of the Supplemental Draft EIS is not intended to be a comprehensive list of all beneficial uses in the project area.

Comment: *The EIS does not address the adverse impacts which will result from the loss of private water rights when minimum instream flows are established or grazing is eliminated. For example, the EIS should discuss the effects on wildlife when the water developments established by private ranchers are lost or no longer maintained when grazing restrictions occur.*

Response: When the federal land management agencies apply for a water right from a state for the purpose of establishing and maintaining instream flows, they do so under the substantive and procedural laws of that state. Prior to making a decision on whether to grant a water right, a state determines whether any existing valid rights would be adversely affected. If so, the state can decline to issue the water right.

Throughout the project area, some wildlife populations have likely benefitted from artificial water developments. The potential effects to wildlife from the loss of artificial water developments if grazing restrictions occur should be determined through application of the step-down process and fine-scale analysis, at the local level.

Terrestrial Species

General

Comment: *Please explain how the species populations outcomes were derived, define the term "population" as it is used in the analysis, and explain why the bird population trend data in the Supplemental Draft EIS differs from U.S. Fish and Wildlife service information about bird population levels from 1966 through 1998.*

Response: The methodology for the species population outcomes is explained in Chapter 4, page 86, of the Supplemental Draft EIS. *Source Habitats for Terrestrial Species of Focus* (Wisdom, et al. 2000) is the primary scientific underpinning to these projections. The intent was to select a set of species to represent the full array of species responses to conditions projected under the management alternatives (see Chapter 4, Page 82 of the Supplemental Draft EIS).

Comment: *The Supplemental Draft EIS does not adequately protect key habitats for fish and wildlife.*

Response: The Final EIS alternative provides an integrated strategy to conserve, protect, and restore fish and wildlife habitat. The application of the standards, guidelines and objectives and the system of A1/A2 subwatersheds, T watersheds, and high restoration priority subbasins are intended to provide a system of protection for key habitats. The effects analysis in the Supplemental Draft EIS concluded that, in general, the preferred alternative would result in better conditions for terrestrial vertebrate species and for the six key salmonid fish species than the other alternatives, and would result in the largest increase in aquatic habitat capacity.

Comment: *Amend the management strategy to provide strong protective standards for designated watersheds and riparian conservation areas.*

Response: The Final EIS includes specific standards related to management of A1 and A2 subwatersheds, T watersheds, and Riparian Conservation Areas. These standards provide that new uses in these areas should be consistent with the management objectives, and that existing uses should maintain or improve habitat conditions. The intent of these standards and their application in Riparian Conservation Areas and A1/A2 subwatersheds is to contribute to a network of connected aquatic/riparian habitats and enhance the long-term persistence of aquatic and riparian-dependent species.

Comment: *The EIS does not adequately address terrestrial invertebrates. Additional information and analysis should be presented about their ecological importance (for example, as food sources for species of concern) and their socio-economic effects (such as the damage some insects do to forest vegetation).*

Response: Because the habitat requirements for invertebrates are generally at the fine scale, it is difficult to precisely establish their current condition and status or to determine the effects of broad-scale direction. Therefore, the analysis presents only a general comparison of the possible effects of the alternatives. Further analysis of effects of proposed management on terrestrial invertebrates or their habitats should be conducted on a local basis during site-specific National Environmental Policy Act analysis.

Comment: *Survey and manage direction for all invertebrates and vertebrates should be included in the preferred alternative, as is required in the Northwest Forest Plan.*

Response: The purpose of this project is, in part, to take a coordinated broad-scale approach to best achieve, in combination with other items, the restoration and maintenance of long-term ecosystem health and ecological integrity. The broad-scale direction in the Final EIS is intended to improve conditions for both vertebrates and invertebrates, ensuring that viability will not be adversely affected. However, specific actions will need to be addressed at

the local level through the step-down process. Mandating surveys at this broad scale is not necessary to meet the project's intent or purpose and need.

Comment: *The proposals, create a false habitat of even-aged, old-growth areas only, which are not good for wildlife.*

Response: The terrestrial strategy in the Final EIS focuses on maintaining or restoring habitats to where they would be expected to occur on the landscape. This would create a diverse mixture of habitats. In the short term, because of the limited amounts of some old forest types, there is a focus on maintaining these limited old-forest conditions where they exist. As restoration proceeds, more focus will be directed to achieving expected conditions on these sites as well.

Comment: *The Supplemental Draft EIS makes no reference to range-based species such as sage grouse. The EIS should address whether a listing of the sage grouse under the Endangered Species Act is warranted.*

Response: Sage grouse is one of the species using rangeland habitats that were analyzed in the Final EIS. Specifically, sage grouse is included in Terrestrial Family 11 (other species using rangeland habitats are included in Terrestrial Families 10 and 12). The land management agencies do not have the authority to make decisions about whether the sage grouse should be listed under the Endangered Species Act; therefore, it is outside the scope of this EIS to address this issue.

Comment: *The guideline that encourages local administrative units to develop a list of plant, animal, and fish species of concern and rare plant communities likely to occur within the unit (Guideline B-G46) should be mandatory, not optional.*

Response: The intent of Guideline B-G46 is to suggest a method for considering these resources during the step-down process. However, not all the species need to be considered in any one of the several types of step-down processes that will be conducted by administrative units. The appropriate and reasonable scope and scale of analysis will depend on the species of concern and the magnitude of risks and opportunities to affect their habitat. Therefore, the proposed decision would not require the creation of a list.

Comment: *The EIS should discuss the presence and environmental consequences of introduced birds such as partridges, quail, and pheasants. Appendix 4 of the Supplemental Draft EIS states that management of these species is beyond the authority of the land management agencies. Yet, based on that logic, the EIS should not address big game species either.*

Response: The difference between big game species and the species of introduced birds is that the effects of the broad-scale management direction on big game species was identified as an issue. The Forest Service and BLM have limited opportunities to affect management of these introduced species.

Comment: *Only 300 of the 2,400 watersheds in the Interior Columbia River Basin will be managed for wildlife and plant species protection. The preferred alternative should protect more watersheds.*

Response: The reference to the 300 of 2,400 watersheds likely refers to T watersheds, which are only one part of the strategy in the preferred alternative to conserve and restore wildlife and plant habitats. Additional base-level and restoration direction applies to all areas of Forest Service- and BLM-administered lands in the project area, with a focus on conserving and/or restoring wildlife and plant habitats.

Comment: *The Supplemental Draft EIS did not provide specific information on the effects of the various alternatives on harvestable species, including large ungulates. For example, while the habitat capability for elk, mule deer, and white-tailed deer is expected to be maintained or slightly higher than current levels with all of the alternatives, the analysis indicates that population levels for Rocky Mountain bighorn sheep will be slightly reduced. More ungulates should be included in the terrestrial vertebrate family groups.*

Response: The effects on harvestable species are disclosed in Chapter, 4 pages 111 to 112 of the Supplemental Draft EIS. The effects on bighorn sheep are disclosed on pages 93, 96, 97, 111, and 112. The criteria for species being included in the Terrestrial Vertebrate Family groupings are discussed in Source Habitats for Terrestrial Vertebrates of Focus (Wisdom et al. (2000). Most ungulates in the basin were not identified using these criteria. However, because of the interest in elk, mule deer and white-tailed deer, the effects of the alternatives on these species were analyzed and disclosed in addition to the effects on the family groupings.

Comment: *We are concerned that the population levels for pronghorn antelope, sage grouse, and Columbian sharp-tailed grouse appear to decrease from current levels with all alternatives.*

Response: The Science Advisory Group completed an analysis looking at why the management direction in the preferred alternative as not projected to prevent the loss of additional habitat for rangeland species. Based on their analysis, the assumed levels of funding available for rangeland maintenance and restoration will not be enough to reverse the declining trends in rangeland habitat conditions. This information has focused attention on rangeland maintenance and restoration needs, and additional funding from the Congress would be needed to address them.

Comment: *The Final EIS should identify a different preferred alternative, because the preferred alternative in the Supplemental Draft EIS would allow many indicator species populations to decline and does not include enough habitat connectivity protection.*

Response: One of the objectives of the terrestrial strategy is to improve habitat connectivity through restoring and repatterning vegetation types to where they should occur on the landscape. In general, the proposed decision would result in better conditions for terrestrial vertebrates on BLM- and Forest Service-administered lands. Most of the species in the following groups would see improved conditions compared to current conditions: old-forest species, riparian species, and species that use habitats that have declined substantially in geographic extent from historical to current periods. Conditions for rangeland species are expected to be stable or declining because of limited restoration technology and an assumed future funding level that would not meet anticipated need. Additional information related to rangeland species is provided in Final EIS.

Viability

Comment: *The statement in Chapter 4, page 84, in the Supplemental Draft EIS ("[the regulations implementing the National Forest Management Act make] it clear that viability is a requirement of the federal landscape") should be modified to specify that the regulation applies only to lands administered by the Forest Service, because these regulations do not apply to BLM-administered lands.*

Response: This statement has been modified to make the suggested clarification in the Final EIS.

Comment: *An interim species response matrix should be developed by the Science Advisory Group or another entity which addresses the entire project area instead having each administrative unit develop its own matrix. Alternatively, guidelines for development of this matrix could be included in the Final EIS.*

Response: Until WCIs have been developed and implemented, a modified matrix has been developed to assist field units in determining the consistency of their activities with aquatic, riparian, and hydrologic standards and objectives in the Record of Decision. (See the Final EIS, Appendix 9, for more information about this matrix.) The modified matrix is a multi-scaled diagnostic tool that will evaluate site-level projects in the context of conditions at the subwatershed or watershed scale. However, this diagnostic tool cannot be used alone to make Endangered Species Act effect determinations

The modified matrix is a compilation of the existing U.S. Fish and Wildlife Service (USFWS) Matrix of Diagnostics/Pathways and Indicators and the National Marine Fisheries Service (NMFS) Matrix of Pathways and Indicators. The modified matrix was developed by a task team composed of regulatory and land management technical specialists working under the Interagency Implementation Team (IIT) established to streamline implementation of PACFISH, INFISH, and the Northwest Forest Plan.

Comment: *The objective to provide habitat supporting viable populations of harvestable plant and animal species should be clarified by: identifying what populations and/or species are involved; providing measurable goals for viability and harvestability; and defining what will be considered "meaningful exercise of treaty rights."*

Response: This proposal is a complex matter and was considered; however, no changes were made at this time. In discussions with the tribes through the Tribal Working Group, the intent has been communicated that the objective of federal land management was to work towards harvestable populations of plant and animal species, beyond simply "recovering" these species. Given the coarseness of the project data and the broad-scale nature of the direction, it is not possible to quantify these goals as suggested. (See sidebar on Basin-wide Tribal Issues, Chapter 4, page 175 of the Supplemental Draft EIS.

Comment: *The standard that directs the agencies to determine if there could be adverse effects on special habitat features such as caves, mines, cliffs, talus, or burrows and to discuss and mitigate any effects (Standard B-S50) should be strengthened to make this requirement binding.*

Response: The provisions contained in any of the standards (in this case, to discuss and minimize or mitigate adverse effects of special habitat features) are considered "binding" direction.

Comment: *There are no binding standards specific to wildlife species that are not federally listed.*

Response: All direction in base-level, restoration, T watershed, A1 and A2 subwatershed objectives and standards are mandatory and required. Many of these were specifically developed to maintain or restore habitat for all species that occur in the project area. A key feature of the terrestrial strategy is to restore and repattern vegetation types to where they should occur on the landscape, which should provide for sustainable habitat conditions for all wildlife species.

Comment: *The preferred alternative apparently trades off the short-term viability of species, even listed species, in the pursuit of experimental long-range restoration goals (Chapter 3, page 85).*

Response: It is not the intent of Objective B-O53, to trade off short-term viability. As discussed in the rationales, some direction may, at times, have adverse short-term effects on individuals but long-term benefits to a given species. The short-term adverse effects anticipate should be of a limited degree, so that viability of a species would not be an issue in the long term.

Comment: *The project includes no viability thresholds and has not conducted the appropriate surveys for wildlife species of concern.*

Response: As described under the Species Viability and Persistence discussions in Chapter 4 of the Supplemental Draft EIS, the terrestrial and aquatic species effects analyses provide the information that decision makers will use to judge whether federal habitat management meets the viable populations requirements of the National Forest Management Act. The necessary analysis that contributes to determining likelihood of viability is presented in the Final EIS; however the final determination of viability will be made in the Record of Decision. Because of the broad-scale nature of this project, surveys are not necessary. Extensive literature searches and expert opinion were used to identify species presence in the basin.

Comment: *The project needs to consider all available science, and throughly scrutinize activities and conditions that cause the elimination, fragmentation, and degradation of wildlife habitat.*

Response: The Science Advisory Group has reviewed the Final EIS and determined that all applicable science was considered, and that the Final EIS is consistent with existing and available scientific knowledge.

Habitat Linkages, Connectivity, Patch Sizes, Corridors, Fragmentation, Fringe Habitats, Edges

Comment: *The EIS should include more information and analysis of habitat fragmentation, patch size, distribution, and juxtaposition.*

Response: Analysis of habitat fragmentation, pactch size, and distribution was reconsidered in the Final EIS. However, the existing available information did not require changes be made to the proposed decision.

Comment: *Several commentors believe that the preferred alternative should require that broad-scale habitat connectivity and linkages for all wildlife species including wide-ranging carnivores be restored. It was suggested that specific indices or measures of connectivity be developed to better support conclusions in the analysis, and key linkage habitats should be identified and mapped.*

Response: The long-term goal of the terrestrial strategy is to have a sustainable mix of habitats that are patterned to be consistent with the landform, climate, and biological and physical characteristics of the ecosystem and that provide a network of source habitats to meet terrestrial species needs. The effects on connectivity were included in the terrestrial model predictions. In addition, repatterning of habitat is intended to improve the connectivity of habitat for wildlife.

Comment: *In addition to mapping low road density carnivore habitat, the EIS should map smaller high quality habitats between the core areas and identify key linkage habitat.*

Response: Areas of high quality, sustainable, terrestrial vertebrate habitat were mapped as T watersheds. No management direction is imposed for the areas identified on Map 2-11b of the Supplemental Draft EIS. These areas are presented as data for local land managers to use. Alternative S2 has direction specifically related to corridors and linkages for wide-ranging carnivores.

Comment: *The direction in the preferred alternative concerning broad-scale habitat connectivity and linkages should be broadened to include plant, bird and animal species, not just wide-ranging carnivores.*

Response: The proposed decision would, over time, improve habitat connectivity and linkages for all species through restoration of habitats that have declined from historical to current periods, and through repatterning of vegetation to be more consistent with landform, climate, and biological and physical characteristics of the ecosystem.

Comment: *The effects on lynx populations in Oregon were not analyzed. The EIS should address the cumulative effects of the preferred alternative on lynx metapopulations and movement of individual lynx among these metapopulations. In addition, the EIS should discuss the effects of increased habitat fragmentation and road density on lynx mortality from trapping, poaching, and incidental take, as well as the role of old forests as refugia for lynx.*

Response: The coarse-scale habitat and environmental factors used to model effects on lynx may not reflect fine-scale environmental requirements that may account for a large amount of variation in key lynx population characteristics. The population outcome predicted in the Supplemental Draft EIS may be optimistic but is expected to be within the range of population outcomes suggested by current knowledge of the spatial structure of lynx populations in the United States.

The broad-scale effects on lynx were analyzed and the results disclosed in the Supplemental Draft EIS in Chapter 4, on pages 88, 93, 106, and 107. The effects analysis indicates that road density would decrease under the proposed decision, and that road construction into inventoried roadless areas would be rare. Current knowledge suggests that competition with coyotes, cougars, and other predators may have a strong influence on lynx populations. The effects on lynx from trapping, poaching, and incidental take by humans is believed to be of much lesser influence than competition. The effects on old forests are disclosed in Chapter 4 of the Supplemental Draft EIS on pages 44, 56-57, 61-64, and 67-69.

Comment: *There is little guidance as to how Objective B-O49 will be implemented.*

Response: Objective B-O49, which provides direction on broad-scale connectivity and linkages, was clarified in the Final EIS; an example of an ongoing effort is provided.

Comment: *We see no reason why standards should not be established to achieve the objectives with respect to management of rangeland terrestrial source habitat. Given the status of rangeland habitat dependent Terrestrial Families 11 and 12, establishment of standards to achieve management objectives for these habitats should be considered essential.*

Response: Three standards for achieving and retaining terrestrial source habitats, including those on rangelands, are included in the management direction for terrestrial T watersheds. (See Supplemental Draft EIS, Chapter 3, pages 124-132.)

Comment: *Objective B-O43 (regarding habitats for viable populations, recovery of listed, and meeting social needs) in Chapter 3, page 3-81 of the Supplemental Draft EIS should cover all native species.*

Response: Objective B-O43 covers all species of plants and animals in the project area.

Comment: *The SAG models point toward a high probability of extirpation for the grizzly.*

Response: The outcomes for grizzly bear are indicative of the habitat changes, primarily human development, that have occurred over the past 150 years in the basin, and that there is little likelihood that areas of high human population will be suitable for grizzly bears. The level of outcomes indicate a high level of risk to grizzly bears which needs to be considered in management actions. The Interagency Grizzly Bear Guidelines are an example of how the risk to grizzly bears can be addressed to reduce the level of risk associated with the outcomes.

Mature/Old Forest Habitat Associated Species

Comment: *Please identify which wildlife species are associated with old-forest structures.*

Response: The species in Terrestrial Families 1 and 2 are primarily associated with old forests. A list of species in each Terrestrial Family is provided in the Supplemental Draft EIS, Chapter 3, page 66.

Comment: *The EIS proposes levels of mature and old forest that are unrealistic, because there is not enough early and mid seral forest to sustain such levels. Furthermore, the amount of mature and old forest in the alternatives does not reflect historical conditions. Too much old-growth forest would be logged under the preferred alternative.*

Response: The historical levels of late seral forest, mid seral forest, and early seral forest were derived from *Source Habitats for Terrestrial Vertebrates of Focus* (Wisdom et al. 2000). They reflect historical conditions as closely as can be determined at this time. The Final EIS does not allow for loss of old forest conditions through timber harvest in the low to mid elevations. The Final EIS attempts to protect old-forest areas from loss to natural disturbance through thinning, prescribed fire, and other fuel management activities.

Rangeland Habitat Dependent Species

Comment: *The Final EIS and ROD should provide a thorough analysis and discussion on the effects of various combinations of the 10 options (Chapter 4, pages 100-102) at varying levels of intensity to address the needs of rangeland habitat dependent species.*

Response: The Final EIS contains an analysis that addresses restoration options and rangeland species outcomes. The Scientific Advisory Group explored the sensitivity of their modeling relative to: (1) funding available to restore rangeland habitats and (2) decreases in the projected adverse effects of livestock grazing. (See next comment for further detail and response). Because the Interior Columbia Basin Ecosystem Management Project is an overall, broad-scale management strategy and an approach intended to integrate direction rather than to keep direction narrow and functional it would be inappropriate to take each of the 10 options as separate variables, out of context with a landscape approach.

Comment: *Terrestrial Families 11 and 12 are projected either to not improve or to decline under all alternatives of the Supplemental Draft EIS. Is that in part a reflection on the very modest proposed reductions for livestock grazing?*

Response: The Final EIS includes the Science Advisory Group analysis of options for reducing the impacts of uncharacteristic livestock grazing and considers increases in restoration funding. The Supplemental Draft EIS direction indicates that adverse livestock grazing effects will be addressed and eliminated over time (Objective B-O10, which broadens the application of Healthy Rangelands from BLM- to Forest Service-administered lands). The Final EIS prioritizes actions to address uncharacteristic livestock grazing effects in locations where grazing might be a "factor in causing an area to function 'at risk'" (Standard B-S12). In the source habitats of concern for Terrestrial Families 11 and 12, the direction in the proposed decision (Objective B-O33) is that vegetative composition would be managed such that source habitats are maintained. The Final EIS does not prescribe livestock stocking levels or permitted/authorized Animal Unit Months, which will require finer-scale analyses and decision-making. However, to estimate broad-scale effects, an assumption about stocking levels was needed.

Comment: *At-risk shrub- and grassland-dependent species, such as sage grouse, are expected to continue to decline under the preferred alternative. Rangelands and shrub-steppe habitats should be identified as a restoration priority in order to prevent additional species from being listed under the Endangered Species Act. It seems like the EIS did not adequately address every option that could bring better outcomes to these species.*

Response: The Scientific Advisory Group completed an additional analysis after the Supplemental Draft EIS was released, to determine if anything could be done to improve the outcomes for rangeland species. They looked at two scenarios, decreasing detrimental livestock grazing effects by approximately 50 percent and by approximately 100 percent. Under both scenarios, they looked at varying levels of active restoration and the funding investments that would be required. Both scenarios were predicted to slightly improve the projected environmental outcomes for sage grouse and Columbian sharp-tailed grouse. However, the restoration costs associated with those slight improvements were considered to be logistically

challenging. SAG's conclusion was the management direction as described in the Supplemental Draft EIS is adequate, and that the major factor limiting outcomes for rangeland species is a lack of available funding to accomplish the direction. Chapter 4 in the Final EIS, pages 4-12 and 4-13, provides more discussion.

The Final EIS contains direction to maintain source habitats for rangeland species, and to restore source habitats for rangeland species that have declined substantially from historical to current periods, including direction that results in reduction of adverse livestock grazing effects. Final EIS direction also calls for managing source habitats to be resilient to natural disturbances, maintaining or restoring noxious weed-free plant communities, and managing uses, such as livestock grazing, to provide healthy vegetation and soil conditions.

Geographic areas have been identified that will help in prioritization of funding to benefit rangeland species by indicating broad-scale opportunities for various species (see Maps 2-11a, 3-5, and 3-10 in the Supplemental Draft EIS). In addition, high restoration priority subbasins have been identified (see Maps 3-8 and 3-9 in the Supplemental Draft EIS).

Snags and Downed Wood

Comment: *Several comments express concern about the standard that directs the agencies to modify default numbers for snags and coarse woody debris within a five-year timeframe (Standard B-S30). Some commentors do not believe enough scientific information is available to develop locally-specific standards. Others express support for the development of local standards, and they request that language be added to Appendix 12 to make it clear that local standards will be developed and to specify what process will be used to develop them. Some people think that the five-year time frame for developing local standards is too short, while others think that the process should be completed in one to two years.*

Response: The guidance on this issue was reviewed, and no changes were made in the Final EIS.

The snag and downed woody debris levels were determined based on expected sustainable levels. By providing snag and downed woody debris levels that are sustainable, the requirements of cavity-dependent species expected to occur on a site should be met. At the end of 100 years, the number of snags on BLM- and Forest Service-administered lands is expected to increase over current conditions.

The tables in Appendix 12 of the Supplemental Draft EIS were developed to assure that appropriate numbers of snags and levels of coarse woody debris would be maintained while standards that are more appropriate for local conditions are developed or verified. The final Eis directs that administrative units or groups of units modify the default standards in Appendix 12 within five years after the signing of the Record of Decision.

Comment: *The objective to maintain and/or recruit adequate numbers, species, and sizes of downed wood to meet ecosystem needs (Objective B-O31) should be a standard. In addition, the guidance to "manage for snag species appropriate to the site" should be changed to "levels of snags should be consistent with the predominant fire regime and with prescribed fire objectives."*

Response: This information was reviewed; however, no changes were made to the direction in Chapter 3, and this direction remains in the Final EIS as an objective. This matter can be evaluated during implementation at the appropriate scales where there is available information. Further analysis of the effects of the proposed decision on snag species or their habitats, will be conducted on a local basis during site-specific analysis from locally available fine-scale data and information.

Comment: *Please explain why the emphasis in the preferred alternative is on increasing snag numbers in the long term when uncharacteristic wildfires are being fueled by existing levels of large downed wood is that are currently above historical levels on most forested lands. Also, timber harvest and prescribed fire will remove dead and dying material from the site and inhibit the recruitment of downed woody material.*

Response: The direction in the Final EIS strives to restore areas where the number of snags or amount of downed wood is out of balance with sustainable levels. In some areas of the basin, amounts are lower than desired and in other areas amounts are higher. Snags and downed wood can sustain fires; however, vegetative communities in the interior Columbia River Basin have evolved with fire disturbance and snags and downed wood within sustainable levels as part of this system.

Comment: *The role that broken top and spike top trees have in providing habitat in dry pine forests should be made a part of the objective in the preferred alternative which addresses snags and coarse woody debris (Objective B-O31).*

Response: This matter was reviewed; however no changes were made. This issue is more appropriately addressed at the fine scale when local project plans are being developed; further analysis can be completed using local available fine-scale data and information.

Comment: *The snag retention requirements do not retain enough snags to provide for viable populations of cavity dependent species, and they do not meet the needs of other wildlife. All large snags and large trees should be treated as "special habitats" that are excluded from work areas, so they do not have to be felled for worker safety or operational considerations. If not, then the expected number of snags that would be felled should be addressed in the analysis.*

Response: The snag and downed woody debris levels were determined based on expected sustainable levels. By providing snag and downed woody debris levels that are sustainable, the requirements of cavity dependent species expected to occur on a site should be met. At the end of 100 years, the number of snags on BLM- and Forest Service-administered lands is expected to increase over current conditions.

Additional specific on-the-ground measures may be needed to meet the needs of wildlife and provide for safety. The specific measures would be determined during project design, and the number of snags to be felled for safety should be addressed in the site-specific National Environmental Policy Act analysis process.

Comment: *The standard that directs the agencies to maintain and/or recruit snags and coarse woody debris within desired ranges (Standard B-S28) should take into account slope, aspect, and fire history.*

Response: The tables in Appendix 12 of the Supplemental Draft EIS were developed to assure that appropriate numbers of snags and levels of coarse woody debris would be maintained while standards that are more appropriate for local conditions are developed or verified. The preferred alternative directs that administrative units or groups of units modify the default standards in Appendix 12 within five years after the Record of Decision for the ICBEMP is signed. When these local standards are developed, appropriate fine-scale variables such as slope and aspect will be considered.

Comment: *The preferred alternative should include guidance to the agencies about using green trees as replacements for snags that will eventually fall down and become downed wood.*

Response: Base-level direction in the Final EIS requires the agencies to maintain and/or restore large shade-intolerant trees and snags in densities that are consistent with the range of historical conditions. The rationale for this standard is that large trees are a future source of large snags, and it is important to have present and future sources of large trees and snags at adequate levels through time. The proposed decision also directs that administrative units or groups of units modify the default standards in Appendix 12 within five years after the Record of Decision is signed to develop local snag retention and green tree replacement requirements.

Source Habitats/Terrestrial Families

Comment: *The Predicted Environmental Outcomes and Population Outcomes table in Chapter 2 of the EIS should include a footnote that defines each of the outcome levels (the table in the Draft Supplemental EIS uses only letter notations).*

Response: A footnote has been added to the table to direct the reader to the Effects of the Alternatives on Terrestrial Vertebrates section in Chapter 4 for a complete discussion of the various outcome levels.

Comment: *The discussion in Chapter 4 about which options were considered to address the slowing the decline of rangeland terrestrial habitats should make it clearer which options were or were not included in the preferred alternative, and why; and the effects of implementing each option.*

Response: The Science Advisory Group has completed additional analysis on rangeland species, which is discussed in the Final EIS. Priority for maintenance and restoration of rangeland habitats is included in the proposed decision.

Comment: *Several species have a 'poor' rating, which indicates the likely long-term loss of these species, which is in conflict with the purpose of ICBEMP and the national policy of the land management agencies.*

Response: A poor rating is not an indication of "likely long-term loss" of a species; rather, it indicates a higher risk to the species than a good or fair rating.

Comment: *There are no standards, only objectives, in the Terrestrial Source Habitat Restoration section.*

Response: The achievement of the objectives over time is a requirement of the proposed decision. However, every objective does not need a standard to specify how to achieve the objective. In many cases, the establishment of a standard at the broad-scale is not appropriate.

Terrestrial T Watershed Direction

Comment: *The T watershed direction should make clear that the short-term goal of conservation of old forest (Objective T-O1) takes precedence over the goal of long-term sustainability (Objective T-O2).*

Response: Objective T-O2 was clarified to reflect that natural processes should be permitted when they contribute to habitat sustainability, not just to long-term sustainability.

Comment: *The standard requiring no new road construction be allowed in source habitats within T watersheds in the short term (Standard T-S3)is not appropriate for inclusion in the preferred alternative because it cannot be considered broad-scale direction.*

Response: The direction acknowledges the difficulty of maintaining some of the source habitats types in T watersheds, but it was considered that the relative "roadless" nature of these T watersheds should be maintained to provide the appropriate maintenance of the condition of the habitat.

Comment: *The preferred alternative contains an objective that directs the agencies to "evaluate the effects of the action on pertinent species within the five Terrestrial Families to minimize short-term risk to the continued persistence of the species" prior to conducting management actions within the source habitats that have not declined substantially in geographic extent. This direction should be expressed as a standard, not an objective.*

Response: The achievement of objectives over time is a requirement of the proposed decision. In many cases, the establishment of a standard at the broad scale is not appropriate. After additional review, the EIS Team made the decision to leave this direction as an objective int eh Final EIS.

Comment: *The selection criteria for each watershed identified as a T watershed in the Supplemental Draft EIS should be presented and explained in the Final EIS. The Nine Mile watershed should be designated as a Terrestrial T watershed.*

Response: T watersheds were identified because the amount and distribution of source habitats, and the associated disturbance processes that maintain these habitats, have undergone relatively little change since the historical period. The Nine Mile watershed was not identified as a T watershed because it did not meet these criteria. However, the base-level and restoration direction in the proposed decision would still apply to this watershed. T watersheds are only one piece of the overall strategy to maintain and restore networks of habitat for terrestrial species.

Comment: *The distribution of T watersheds appears to be inadequate with regard to protection of low elevation habitats, rangelands, and habitats critical to many species of concern. The Science Advisory Group concluded that T watersheds do not constitute a sufficiently large area to lead to overall improvement in population outcomes for most species.*

Response: T watersheds are only one piece of the overall strategy to maintain and restore networks of habitat for terrestrial species. They are identified for the specific purpose of conserving in the short term the most sustainable areas of source habitat.

Comment: *If the role of T watersheds is to serve as anchors for a landscape scale terrestrial conservation strategy, then it becomes critical that ICBEMP clearly direct the resource managers to protect remnant large old trees in these areas as well as all stands where they occur.*

Response: As part of the base-level direction, Objective B-O30 addresses maintenance of old-forest types in short supply.

Comment: *The standards and objectives for T watersheds contain no restrictions on what can be done to repattern source habitats.*

Response: The objectives and standards in the proposed decision direct that vegetation patches, patterns, structure, and species composition be

restored to be more consistent with the landform, climate, and biological and physical characteristics of the ecosystem.

Threatened, Endangered, Proposed, Candidate, Sensitive Wildlife Species

Comment: *Please explain why state wildlife agency lists of species of risk are not presented in the EIS, and address how the concerns of groups such as Partners in Fish, the Audubon Society, and others were considered.*

Lists are constantly changing as speices are added or taken off. Implementation data-gathering steps in the future, and in the step-down processes, will consider these species during local project-level National Environmental Policy Act (NEPA) processes.

Comment: *Please clarify the relationship between the EIS and conservation strategies and recovery plans. Specifically, explain whether subsequent actions to implement the preferred alternative must comply with conservation strategies and recovery plans; and describe how objectives in recovery plans and conservation strategies are being incorporated into the Final EIS and into subsequent planning and NEPA processes. Also, does the proposed decision implement the Lynx Conservation Strategy?*

Response: Standard B-S55 in Chapter 3 of the Final EIS states that "Relevant management activities shall be designed and implemented to be consistent with adopted recovery plans, conservation strategies, and other appropriate reports. In the Final EIS this standard was clarified regarding what constitutes an "adopted" plan or strategy. The proposed decision would not specify which conservation strategies should be implemented, only that relevant management actions will be consistent with adopted strategies.

Comment: *Please clarify which process is used (either Endangered Species Act consultation or the National Environmental Policy Act process) to identify whether there are "potential negative effects on listed or proposed species" which would trigger the requirement to conduct Ecosystem Analysis at the Watershed Scale.*

Response: Potential negative effects on listed or proposed species would be identified during Subbasin Review. If Subbasin Review was not completed then it would need to take place before the National Environmental Policy Act (NEPA) process was initiated. The analysis process should be kept simple (a Biological Evaluation or Biological Assessment would not be needed) to reach the determination of potential negative effects. It is meant to be a cursory analysis, and not a basis for informal or formal consultation under the Endangered Species Act (ESA).

Comment: *The contributions of research natural areas and areas of critical environmental concern to species recovery should be addressed in the Final EIS.*

Response: The Science Advisory Group completed an analysis of natural areas; however, it does not include special designations such as areas of critical environmental concern. A detailed discussion of natural areas was added to Chapters 2 and 4 of the Final EIS.

Comment: *The Supplemental Draft EIS states that "the peregrine falcon was recently delisted by the U.S. Fish and Wildlife Service, and is now a Forest Service/BLM sensitive species". This statement should be clarified to reflect the fact that not all BLM and Forest Service units covered by the EIS include this species on their lists of sensitive species.*

Response: The data- and information-gathering steps in the implementation and step-down process will consider these species and their local listing status and populations during local project-level NEPA analysis.

Comment: *Preventing the listing of additional species under the Endangered Species Act and the recovery of already listed species should be listed as one of the management priorities in the EIS.*

Response: Chapter 1, page 10, of the Supplemental Draft EIS identifies "help restore and maintain habitats of plant and animals species, especially those of threatened, endangered, and candidate species" as part of the intent of the project.

Comment: *Chapter 2 in the Supplemental EIS should be updated to reflect the fact that the U.S. Fish and Wildlife Service has completed its status reviews for Westslope cutthroat trout and redband trout and decided not to list them.*

Response: The correct status of westslope cutthroat trout and redband trout has been clarified in the Final EIS. In spring 2000, the U.S. Fish and Wildlife Service determined that the westslope cutthroat trout

species condition does not warrant listing as threatened or endangered species. This is updated in Chapter 2 of the Final EIS.

Comment: *Protect habitat for all other vulnerable and endangered species that live in the 63 million acres.*

Response: The broad-scale species of focus were identified in *Source Habitats for Terrestrial Vertebrates of Focus* (Wisdom et al. 2000). One focus of proposed decision is the conservation and restoration of habitat for these broad-scale species. However, many species will benefit from this direction.

Comment: *The management direction violates the intent of the Endangered Species Act. The very restrictions you place on many actions make them not achievable in today's or even tomorrow's economy. The reality of this and other planning proposals are that the species are being affected by 'non-action' alternatives (for example, there will be a lack of ability to reach and treat critical habitats threatened by large, destructive wildfires).*

Response: The amount of funding was limited to a level that would be reasonable to expect. However, achievement of project objectives would not be driven by funding levels; only timing of implementation would be affected by funding. Alternative S2 directions does focus on the reduction of risk from large, uncharacteristic wildfires.

Comment: *One of the biggest disappointments in an otherwise generally positive document is the decrease in outcome from "C" to "D" for grizzly bear. Why in the world should grizzly bears be managed from a "C" to "D"?*

Response: The discussion in Chapter 4, page 106, of the Supplemental Draft EIS emphasizes two points. First, some direction in Alternative S2 was not included as inputs to the model predicting effects on grizzly bear, and this direction regarding corridors should have a positive effect on grizzly bears. Second, the effects analysis considered grizzly bear habitat throughout the basin, but there are many parts of the basin that are not managed for grizzly bears. When the occupied grizzly bear recovery areas alone are considered, the situation would appear to be stable or improved.

Comment: *The Supplemental Draft EIS states that "management direction for threatened, endangered, and proposed species would apply to habitats used by those species." How will this be determined?*

Response: This statement refers to areas occupied by listed species or designated as critical habitat. Consultation with the U.S. Fish and Wildlife Service or National Marine Fisheries Service will be important in identifying habitats used.

Comment: *It appears that the proposed alternative continues to defer the resolution of key risk management issues until later decision points, sidestepping a key purpose of the project—to provide clear management direction that ensures that legal obligations to protect and restore species and their habitats are met.*

Response: Risk issues were addressed from a broad-scale perspective; however, many risk issues are fine scale and require local data to resolve. The direction in the proposed decision related to step-down processes is intended to facilitate risk management and a tie between broad-scale direction and fine-scale data. The management direction also includes base-level direction (for example RCAs) and spatial direction (A1, A2, and T areas) to address broad-scale risk issues.

Comment: *The list of threatened and endangered species that may be affected by the project includes dozens of terrestrial species that have not received much focus in the last few years as part of the project process.*

Response: The Final EIS includes direction that addresses listed species. Effects of the management direction were predicted for currently listed species that are considered broad scale by the Science Advisory Group; see Chapter 4, pages 104-107 in the Supplemental Draft EIS.

Comment: *Does the proposed action implement the Lynx Conservation Strategy? The Final EIS and Record of Decision should clearly indicate which conservation strategies will be implemented.*

Response: The EIS does not make a decision on which conservation strategies should be implemented, but that relevant management actions must be consistent with them. Standard B-S55 in Alternative S2 states that "Relevant management activities shall be designed and implemented to be consistent with adopted recovery plans, conservation strategies, and other appropriate reports." In the Final EIS this standard was clarified regarding what constitutes an "adopted" plan or strategy.

Comment: *Where conflicts between differing goals and objectives arise, those relating to protection of threatened and endangered species should take priority over the other goals and objectives wherever required to protect and recover threatened and endangered species.*

Response: The Hierarchy of Management Direction has been edited to clarify that the Threatened, Endangered and Proposed Species direction in the proposed decision takes precedence over all other ICBEMP direction.

Comment: *More high restoration priority direction should be identified for the in the Selkirk-Priest Basin. The area is extensively roaded and these routes should not continue to fragment the network of habitats.*

Response: Restoration direction in the preferred alternative includes direction to restore habitat by reducing roads. Although high restoration priority subbasins were identified based on specific criteria, restoration activities in them should consider all restoration needs.

Wide-ranging Carnivores (Gray Wolf, Grizzly Bear, Lynx)

Comment: *All references to lynx in the EIS should be updated to reflect its status as a listed threatened species (instead of proposed for listing), and the status of the U.S. Fish and Wildlife Service EIS for grizzly bear should be updated.*

Response: Reference to the current lising status and how it affects the proposed decision of Lynx is now incorporated in Chapters 2, 3, and 4 of the Final EIS.

Comment: *The information about current distribution of gray wolves should be updated to reflect their presence in Washington State.*

Response: Chapter 2 of the Final EIS has been edited to reflect this information.

Comment: *The direction in the preferred alternative for wide-ranging carnivores needs to be strengthened and clarified. The management objectives for these species should be to protect and restore populations and individuals on an ecoregional basis, and to avoid, not minimize, adverse effects. Wide-ranging carnivores are good examples of the kinds of issues that necessitate ecoregional planning. The Supplemental Draft EIS does not provide a strategy to address the needs of these species, but rather only guidance to encourage managers to "coordinate across multiple jurisdiction boundaries" and "minimize isolation of wide-ranging carnivore populations."*

Response: It is recognized that linkage areas cross federal, state, and private lands and that the BLM or Forest Service have no authority over these lands. Therefore, a role of BLM and Forest Service is to facilitate coordination among all property owners. This direction was enhanced in Chapter 3 of the Final EIS to clarify the need for an overall regional approach.

In addition, an overall terrestrial strategy is incorporated in the base-level, restoration, and spatial direction. This direction supplements the objectives and standards specifically related to wide-ranging carnivores. The data and maps from Source Habitats for Terrestrial Vertebrates of Focus (Wisdom et al. 2000) were used in the development of the proposed decision.

Comment: *The EIS should analyze the impacts of the alternatives on the snowshoe hare, the lynx's main prey species. In addition, the EIS should address potential impacts to red squirrels and other alternate prey for lynx.*

Response: Habitat for prey species is considered in the identification of source habitats in *Source Habitats for Terrestrial Vertebrates of Focus* (Wisdom et al. 2000). This information was used to develop the management direction in Chapter 3, and to predict broad-scale effects in Chapter 4 of the Supplemental Draft EIS.

Comment: *Standard B-S53 requires management to "identify and map important wide-ranging carnivore areas," but no further action is required once areas have been identified.*

Response: Standard B-S53 is nested under objective B-O50 and provides information to aid in achievement of B-O50. Standard B-S53 references the Subbasin Review. A purpose of Subbasin Review is to use mid-scale information on status, risk, and opportunities within a subbasin as context for finer-scale analysis and to identify and prioritize types of management activities appropriate to meet broad-scale objectives. Identification of habitat is appropriate to accomplish the objectives of Subbasin Review.

Comment: *Standard B-S54 only requires that the National Environmental Policy Act (NEPA) documentation should predict impacts on carnivores. There is no requirement to avoid adverse effects.*

Response: Standard B-S54 is nested under B-O51 and directs that effects of implementing B-O51 be documented through NEPA analysis. The word "should" in Standard B-S54 was changed to "shall" in the Final EIS.

Comment: *Biological opinions for grizzly bears that will include Reasonable and Prudent measures and Terms and Conditions should be retained as standards under ICBEMP.*

Response: The aquatic strategies in the proposed decision are specifically intended to replace the interim PACFISH and INFISH direction and the associated steelhead and bull trout Biological Opinions. It is not intended that the direction would take precedence over fine-scale threatened and endangered species direction currently in land and resource management plans. Objective B-O52 directs that agencies contribute to recovery of federally listed species, and the hierarchy of management direction has been further clarified in the Final EIS to state that the threatened and endangered species direction takes precedence over other all direction.

Comment: *The Selkirk/Cabinet-Yaak area is excluded on Map 2-11b. The Supplemental Draft EIS must address specific restoration measures required to return the Selkirk and Cabinet-Yaak areas to secure, source habitat.*

The preferred alternative does not include the Selkirk and Cabinet-Yaak grizzly bear populations in the seven areas identified as building blocks of a network of habitat for wide-ranging carnivores.

Response: There is no specific direction associated with management of the areas shown on Map 2-11b. The areas shown on the map contain specific characteristics which the Science Advisory Group identified as important to wide-ranging carnivores. The areas on Map 2-11b are displayed as information to aid local decision makers. The base-level and restoration direction in the Final EIS applies to the Selkirk/Cabinet-Yaak area and to all Forest Service- or BLM-administered lands in the project area, including those areas shown in Map 2-11b.

Seven areas are identified as building blocks based on certain habitat and road density criteria. Although the Selkirk and Cabinet-Yaak areas do not meet these criteria, these areas are still recognized as recovery areas for grizzly bears and would continue to be managed to reach recovery. The restoration direction in the proposed decision is expected to improve conditions for grizzly bears in these two areas.

Comment: *The preferred alternative would increase timber production over that resulting from current direction. Increased timber harvest and forest management activities are not consistent with recovery of wide-ranging species.*

Response: Vegetation management activities under the proposed decision would be designed to improve sustainability of habitats. This approach should benefit these species. Where conflicts arise between threatened or endangered species recovery and direction in the Final EIS, conflicts would be resolved to be consistent with species recovery. In some cases it may be necessary to set back succession to aid species recovery (for example, create thick stands of young trees to benefit snowshoe hare which are prey for lynx).

Wildlife - Human Interactions

Comment: *Roads can have both positive and negative effects on wildlife. The Supplemental Draft EIS emphasizes the negative aspects.*

Response: Generally, the negative effects of roads on wildlife outweigh potential positive effects. However, the management direction recognizes that while roads may have negative effects on wildlife, they are necessary to achieve other objectives. The Final EIS requires that road analysis be performed to identify needed roads and reduce adverse impacts.

Comment: *The EIS should analyze the historical, existing, and potential cumulative effects of mineral mining operations on the regional ecosystem and the effects of habitat disturbance on species viability.*

Response: The historical and existing effects of mining are included within the overall projections of habitat condition. For example, the Supplemental Draft EIS projects that current levels of impact would continue into the future. However, while in a particular location mining can cause substantial adverse effects, at the basin scale these effects may be minor, because of the limited number of mining

operations compared to the amount of lands administered by the Forest Service and BLM in the project area. Therefore, it was not possible to separate out the specific effects of mining operations. These would be done as needed through step-down processes and local-level National Environmental Policy Act (NEPA) analysis.

Comment: *The EIS understates the human health and safety problem of habituated wolves, mountain lions, and grizzly bears in the urban-suburban-rural interface. The adverse effects on humans from these species (such as injury and fear) should be addressed.*

Response: This issue was considered, but these effects were not identified by the Science Advisory Group as broad-scale effects that would result from the management direction. These types of effects are best addressed at through the step-down process and local-level National Environmental Policy Act (NEPA) analysis.

Aquatic Species

Comment: *The A1/A2 subwatersheds are too small, too dispersed, or two few to be effective. Most A1 areas are already off-limits because they are in wilderness areas, so designating them adds little value.*

Response: The criteria used to designate A1/A2 subwatersheds include the presence of known strong populations for the seven key salmonids; important anadromous fish populations in the Snake River Basin; genetically pure populations of anadromous fish outside the Snake River Basin; and/or fringe populations for four of the key salmonids. These areas are intended to provide a system of core subwatersheds that are the anchor for recovery and viability of widely distributed native fishes. They are not intended to be static, long-term reserves. A1 subwatersheds were designed to have a high component of congressionally designated wilderness because these areas contain habitat that often nears attainment of aquatics objectives; it is important to retain them in their current condition. In addition, these A1/A2 subwatersheds are only one component of a larger aquatic/riparian/ hydrologic restoration strategy. Other elements of the strategy, such as standards and guidelines and designation of high restoration priority subbasins, supplement the direction in the preferred alternative for the A1/A2 subwatersheds.

Comment: *A table should be placed in the Final EIS showing the acres of A1/A2 subwatersheds in existing protected areas.*

Response: To the extent possible using broad-scale data, the location of the A1/A2 subwatersheds is displayed in the Final EIS (Map 3-11a). However, not all existing protected areas in the project area have been mapped and digitized into a Geographic Information System. This situation prevents accurate analysis of overlaps at the basin scale. When BLM and Forest Service land use plans are revised to conform with the ICBEMP Record of Decision, an analysis of overlapping land use allocations, using finer-scale data, would be available for each administrative unit.

Comment: *The Final EIS should include a process or protocol for refining the A1/A2 subwatersheds and provide an adaptive management loop for future needs and modifications based on new or existing finer-scale information.*

Response: The step-down process provides the opportunity to validate and, as necessary, refine A1/A2 subwatershed locations using existing finer-scale information. Appendix 18 describes the process that will be used to fine-tune these delineations and make future changes and updates.

Comment: *The A1/A2 management direction is reasonable but lacks enforcement teeth and falls short of what is needed to safeguard watersheds with important fish habitats.*

Response: The ICBEMP Record of Decision will include a specific implementation monitoring program (see Appendix 10). The information collected through this program will be used to determine if activities are implemented as envisioned in the preferred alternative and whether standards and guidelines for A1/A2 subwatersheds are being followed. This monitoring will be conducted as a cooperative effort that will involve the federal regulatory agencies and other interested and affected parties.

Comment: *The effects of dams and hatcheries should be addressed in the Final EIS.*

Response: Regulation of dams and hatcheries is outside the land management agencies' jurisdictions and, therefore, is outside of the scope of the manage-

ment direction contained in this EIS. Information about the effects that dams and hatcheries have on various native fish species is presented in Chapter 2 of the Supplemental Draft EIS (for example, pages 162 and 163 provide an overview of the effect that dams and hatcheries have had on Interior Columbia River anadromous fishes). The information contained in Chapter 2 was used in the designation of A1/A2 subwatersheds and aquatic restoration high priority restoration subbasins.

Social-Economic-Tribal Components

Economics

Economic Direction

Comment: *The objectives and standards lack innovative strategies within the alternatives to achieve ecosystem restoration using methods that result in economic benefits. These directives simply encourage the hiring of locals to conduct restoration activities.*

Targeting restoration jobs to local communities is likely to require amendments to labor and contracting regulations.

Consider adding an objective or goal to expand existing contracting authorities to better meet local contracting emphases and get results.

Response: The objectives, standards, and guidelines also address making contracts and services as accessible as possible to local firms and individuals, and suggest using innovative approaches such as the stewardship contracting authority. Seeking expanded contracting authorities is an option that may be explored with other partners and stakeholders during the step-down process and implementation as one of several innovative approaches to achieve the objectives of the Final EIS. The first preference will be to use existing legal authorities available to the Forest Service and BLM, as well as other federal partner agencies, to the maximum extent possible.

Comment: *Reword Guideline B-G47 regarding restoration work contracts and local communities to be more clear and meaningful.*

Response: Suggested wording has been incorporated at the beginning of Guideline B-G47 to calrify the meaning.

Comment: *There is a conflict in Alternative S2 direction between targeting subbasins for restoration work based on biophysical (ecological) needs and for areas with highly dependent local communities.*

Response: Chapter 3 of the Supplemental Draft EIS, Management Direction – Restoration (pages 92-124), along with Appendix 15, describe the delineation of broad-scale functional restoration priority subbasins, and the melding of those functional priorities to delineate integrated high restoration priority subbasins. This includes both high priority biophysical and high priority economic and tribal needs. Objective R-O34 directs managers to give first priority in those high restoration priority subbasins to restoration work that can be located near communities that are less economically diverse and more economically associated with goods and services produced from agency-administered lands. Rather than a conflict in direction, it is a matter of setting integrated priorities.

Comment: *There are no enforceable restrictions on old-growth logging, new roading, etc.*

Response: Objectives and standards that limit or exclude harvesting old-growth trees or building new roads, such as "no road construction in A1 subwatersheds in the short term (Standard A1-S2, Chapter 3, page 133), will become part of national forest and BLM district land use plans through amendment of existing land use plans. Such objectives and standards then become administratively and legally enforceable.

Comment: *The wording of Standard B-S17 is confusing. Management flexibility should be explicitly provided to allow removal of unstable lands from the suitable timber base if deemed necessary to reduce the risk for, or prevent increased, landsliding.*

Response: It may be desirable in the case of unstable or potentially unstable slopes to exclude some or all of the timber volume from the allowable sale quantity. Therefore the standard allows the flexibility for this decision to be made at the local level. Local planners would have the discretion to remove unstable lands totally from the timber base if it is deemed necessary to prevent increased landsliding.

Comment: *We are concerned about elevating ecosystem management principles above multiple resource outputs to the point that resource outputs at the forest level are*

treated as a residual product of ecosystem restoration. The law (Organic [Administration] Act of 1897, Multiple Use-Sustained Yield Act of 1960, Resources Planning Act of 1974, National Forest Management Act of 1976) prohibits placing resource outputs in a back-seat role.

Establishing resource output targets must be what drives the Supplemental Draft EIS, or, at least resource output targets must be considered on the same plane as ecosystem management.

A successful ecosystem management strategy would develop a "socially accepted pattern of disturbance."

Response: None of the laws cited places one "use" above another. However, the Endangered Species Act of 1973 (ESA), does establish a higher use priority, which requires the protection of listed species and their habitats (also forest "uses"), at the expense of other resource management activities and outputs if necessary. The various late-successional dependent species such as the northern spotted owl and the marbled murrelet, and the forest management changes instituted through the Northwest Forest Plan, are good examples.

The 1897 Organic Administration Act for the Forest Service states: National Forests shall be established "...for the purpose of securing favorable conditions of water flows, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States;..." This selective citation leaves out one major phrase. The full quotation is: "No national forest shall be established, except to improve and protect the forest within the boundaries, or for the purpose...." The full quotation very definitely provides as a major purpose of national forest management the protection and improvement of the forest – which is a core emphasis of the ICBEMP proposed action, particularly in light of the current and potential species listings under the ESA.

It is expected that the vegetation and disturbance patterns resulting over time from implementation of the proposed action will be more socially acceptable, as well as achieve greater ecological integrity and resiliency, than was the direct and indirect result of past vegetation management activities and practices.

Comment: *No areas have been designated to "produce" as an emphasis.*

Response: Delineation of conserve, restore, and produce were used in the Draft EISs and have been replaced by a more geographically explicit integrated restoration strategy. Delineation of A1 and A2 subwatersheds and T watersheds and Riparian Conservation Areas will supersede land allocations and associated management direction in existing land use plans, in order to meet the ecological and restoration goals. However, other existing land allocations and associated management direction not superseded will remain in force, including those emphasizing commodity production.

Comment: *The Supplemental Draft EIS should include an accurate estimation of how social and economic forces can drive restoration efforts and make them cost-effective.*

The project has not objectively assessed how to achieve forest ecosystem health goals in a cost-effective manner. Commodity production could be an important means to offset restoration costs, while improving environmental quality.

Commercial silviculture, including environmentally sound timber harvest, should be incorporated as part of the plan to generate funds for ecosystem management and provide economic stability to rural communities.

Response: A key component of the proposed decision is setting priorities for restoration efforts based also on social and economic needs. In that way, social and economic factors help to drive restoration work, increasing overall cost-effectiveness by meeting the multiple objectives (physical, biological, economic, and social) of the proposed action.

The projected timber and grazing outputs, as shown in the Supplemental Draft EIS, Table 4-33, are an estimate of the sustainable levels that could be allowed as a consequence of management direction implemented for watershed and ecosystem protection and restoration. Management direction does not specify certain output levels. Rather, it describes desired ecosystem conditions. Therefore, at the broad scale of this analysis, the output levels projected basin-wide and by RAC/PAC are all that can take place while still meeting ecosystem protection and restoration goals.

Commercial silviculture, including commercial thinning, is part of the projected management strategy, although most thinning will be designed to achieve ecosystem and habitat restoration and

improvement (stewardship purposes), rather than for timber growth and yield purposes.

Comment: *Agencies should not emphasize short-term economic gain through timber harvest and grazing. Restoration work should be driven by biological assessments, not economic needs of local communities.*

Response: The core of the ICBEMP process and proposed action is to sustain and improve environmental and ecological conditions in the basin. The proposed action also works to meet the social and economic needs of people – especially those in isolated and economically-specialized rural and tribal communities – while meeting ecological and restoration goals.

The Supplemental Draft EIS, Chapter 3, Management Direction – Restoration (pages 92-124), along with Appendix 15, describe the delineation of broad-scale functional restoration priority subbasins, and the melding of those functional priorities to delineate integrated high restoration priority subbasins, including both high priority biophysical and high priority economic and tribal needs.

Both Alternatives S2 and S3 emphasized reducing short- and long-term risks to natural resources from human and natural disturbances.

The projected timber and grazing outputs in the Final EIS are estimates of the sustainable levels that could be allowed as a consequence of management direction implemented through the proposed decision for watershed and ecosystem protection and restoration. Management direction does not specify certain output levels. Rather, it describes desired ecosystem conditions.

Comment: *Broad-scale decisions on objectives and standards, as in this Supplemental Draft EIS, will not yield the same outputs as projected when actually implemented.*

Response: The modeling and projection of expected effects and outcomes of implementing the proposed action are described in detail in the Supplemental Draft EIS, Chapter 4, in various appendices, and in supporting science documents. They give the best possible estimates given current knowledge. Site-specific results will undoubtedly vary around the basin-wide or RAC/PAC averages. Fine-scale effects will be estimated during the step-down process and land use plan amendments. Over the longer term, monitoring will provide feedback concerning the actual effects of implementation of the Final EIS, and will be the mechanism through which needed adjustments to direction may be made (the "adaptive management" process).

Comment: *Alternative S2's resource output levels fail to reflect the current public lands-related job percentages of 81 percnt recreation, 9 percent timber harvest, and 1 percent livestock grazing.*

Response: As discussed in the Employment section of Chapter 2 of the Supplemental Draft EIS, there are currently an estimated 95,000 direct jobs associated with livestock grazing, recreation, timber harvest, and various forestry services on agency-administered lands in the basin (pages 191-192). There is no change forecast at the basin level in recreation use; therefore, there would be no associated changes in the current 77,000 recreation-related jobs. With only a 4 percent change in the total direct jobs, the percentage by category would change only marginally (for example, recreation would drop to about 78 percent from 81 percent).

Comment: *On Table 4-49, page 4-165, neither the range nor the units for these classifications are shown.*

Response: Table 4-49, in Chapter 4 of the Supplemental Draft EIS, is strictly a qualitative estimate of uncertainty around timber sale viability based on a combination of projected timber harvest increases, potential timber sale profitability, and sale marketability.

Comment: *We cannot find Wallowa County, Oregon, listed in Table 3 of Appendix 7. Given the nature of the county's economic structure, it would appear to be a serious omission.*

Response: Wallowa County, Oregon, is included in Table 3 of Appendix 7, page 7-20. It was inadvertently called "Walla Walla" County, but the data shown are correct for Wallowa County. The name has been corrected in the Final EIS.

Comment: *Why are the terms "rural and tribal" both used in reference to communities, rather than just "rural" or "community"?*

Response: The use of the term "rural and tribal" is done intentionally to remind managers and others of the need to keep tribal needs and concerns on an equal level with other resource, social, and economic issues.

Comment: Page 2-189 states: "Appendix 7 shows percentages of county budgets made up of Payment in Lieu of Taxes (PILT) and other revenue-sharing payments in the early 1990s. We cannot find that information in Appendix 7.

Response: The information is in the Supplemental Draft EIS, Appendix 7, Table 3 (pages 7-20) under the column titled "Federal Land Payments (%)." The definitions for five adjacent columns, including this one, were located together in one footnote. Those column definitions have been split into separate footnotes in the Final EIS for greater clarity and ease of understanding.

Comment: *There needs to be an analysis of the project on agency budgets, the U.S. Treasury, and taxpayers.*

Response: This comment is outside the scope of this EIS. The budget costs of implementation for the Forest Service and BLM have been estimated in the Supplemental Draft EIS.

Comment: *Discuss the use of alternative products to replace and/or supplement products derived from national forest lands.*

Response: This comment is outside the scope of this EIS. Such a discussion would be relevant to policies and processes broader than those to be resolved by this EIS. In addition, there would be no projected changes to be disclosed from implementation of the proposed decision.

Economic Analysis

Comment: *Where can one find a comparison of benefits (and losses) between management for an administrative unit under its current land use plan and management if ICBEMP is implemented?*

Response: Effects of the alternatives on specific administrative units, or other areas smaller than the RAC/PACs (such as a national forest, county or subbasin), cannot be measured directly because of the broad-scale nature of the analysis. Therefore, the administrative unit-level effects will have to be identified during the step-down process and as the land use plans are revised.

Comment: *Non-market values of local citizens, as well as existence or preservation values of nonresidents, should be included in the economic equation.*

Response: The text in the Supplemental Draft EIS, Chapter 2, page 189, has been clarified. It indicates that values held by local and regional residents, for environmental amenities that could be expressed in dollar terms would be included in a complete accounting of economic benefits. (The EIS discusses these types of values only in qualitative, not quantitative, terms.) The discussions in Chapter 2 recognize both economic values generated by products and services from BLM- and Forest Service-administered lands and other values, such as those associated with quality of life in the region that are held and enjoyed by local residents and rural communities.

Comment: *By law, the Forest Service must justify its resource management programs, plans, and projects on social and economic grounds. The project will not maximize net public social and economic benefits, because it does not adequately consider the wide range of social and economic benefits of unlogged forest (and also of non-forested lands not subject to livestock grazing, etc.)*

Response: There is no federal law that requires the agencies to justify their programs and projects on strictly economic and social grounds. Rather, the National Environmental Policy Act (NEPA) requires that economic and social, as well as physical and biological, effects of proposed federal actions be disclosed. In addition, the National Forest Management Act (NFMA) and its implementing regulations require that social and economic effects of implementing each alternative be considered and compared. The selected alternative is then the one determined to have the greatest "net public benefits." However, this is not an economic/social term, it is "...an expression to signify the overall long-term value to the nation of all outputs and positive effects (benefits) less all associated inputs and negative effects (costs) whether they can be quantitatively valued or not." (36 CFR 219.3) By definition, the alternative selected by the decision maker is the one that has the greatest "overall long-term value to the nation" – that is, it has the maximum "net public benefits." The Forest Service and BLM executives making this selection believe the proposed decision in the Final EIS best meets the purpose and need and has the greatest "net public benefits."

Comment: *The economic analysis is inadequate. A weighing of unquantified environmental amenities and values against economic and technical considerations, as required by National Environmental Policy Act (NEPA), was not done.*

Response: The Science Advisory Group and EIS Team used the best available information to identify the quantified and unquantified benefits and costs – physical, biological, economic, and social – for the no-action and the action alternatives, and evaluated those benefits and costs in the context of the project's purpose and need and in relationship to each other. Such a weighing and evaluation process is extremely complex for a process as wide-ranging and broad-scale as ICBEMP.

Comment: *A peer-reviewed audit of the economic analysis should be required before the project can be finished.*

Response: The development of the Final EIS and Record of Decision (ROD) has met the requirements for NEPA analysis, including input and analysis by a number of professional economists, both inside and outside the federal government.

Comment: *We ask that the agency reevaluate and reconstruct the socioeconomic analysis to include the benefits of outdoor recreation for local economies and a discussion of historically unmeasured (nonmarket) economic values of forest and wildlands recreation, which is rapidly increasing and will continue to increase throughout the foreseeable future.*

Response: The Economics Chapter (Haynes and Horne 1997) of the *Assessment of Ecosystem Components* discusses the current and projected recreation situation in the interior Columbia River Basin, including demand for various types of recreation, supply of recreation opportunities within the basin, nonmarket economic values of recreation (expressed in terms of "willingness-to-pay"), and total jobs associated with recreation activities on BLM- and Forest Service-administered lands within the basin. The supply/demand and jobs information from the *Scientific Assessment* are summarized in Chapter 2 of the Supplemental Draft EIS. Because the EIS has not adopted a formal quantified benefit-cost analysis approach, these nonmarket values are not discussed in the Supplemental Draft or Final EISs (nor are any other quantified economic benefit values, such as timber prices). Also, because there are no changes in recreation opportunity predicted at the scale of analysis for the project area, additional discussion of potential changes in recreation benefits and impacts for local communities is not included in this document.

Comment: *The 1998 Economics Report (ICBEMP 1998) ignores the subsidies, externalities and other price distortions that encourage resource extraction.*
Response: The core and emphasis of the ICBEMP process and proposed action is to sustain and improve environmental and ecological conditions in the basin. Areas of significant aquatic and terrestrial core habitat value, along with riparian areas, are identified and protected from management activities that do not meet the objectives of maintaining and improving those habitat values. The proposed action also works toward meeting the social and economic needs of people – especially those in isolated and economically specialized rural and tribal communities – while also meeting ecological and restoration goals. The focus on meeting those goals offsets any price effects that might otherwise encourage higher levels of resource extraction.

Comment: *The Supplemental Draft EIS does not address impacts on motorized recreation, and on small Off Highway Vehicle OHV businesses that depend on public lands.*

Response: As discussed in the recreation section in Chapter 4 of the Supplemental Draft EIS, no significant changes in expected supply of recreation opportunities, as measured by changes in distribution of Recreation Opportunity Spectrum (ROS) acres, were found at the broad-scale level of analysis done for this EIS. Possible changes in road access and potential changes in access to riparian areas because of implementation of Riparian Conservation Area objectives and standards that could potentially affect motorized recreation supply and use were not modeled at this broad scale because they rely on more site- and condition-specific information. These potential changes and possible impacts on recreation use and associated businesses (of all types, including motorized/OHV) will be assessed and evaluated in more detail during the step-down process (Subbasin Review, Ecosystem Analysis at the Watershed Scale, and Forest/District land use plan revisions).

Comment: *The Supplemental Draft EIS should have included sensitivity analysis or scenarios by subbasin or RAC/PAC, varying RCA, A1/A2 subwatershed, and T watershed/habitat designations, in order to get varied ranges of outputs.*

Response: The size and complexity of the project area would have made running and evaluating any reasonable number of sensitivity analyses for the various outputs reported prohibitively expensive in additional time and cost required to complete the EIS. More of that information should be developed during the step-down process. The finer scale of analysis during step-down will provide local information that is more meaningful in evaluating further decisions for individual land use plan revisions and projects to be implemented.

Comment: *Most of the real economic benefits/effects of the proposed action are long run, occurring after the first decade, and are not analyzed or discussed. Most of the benefits that are discussed in the Supplemental Draft EIS are short-term restoration jobs and raw material to be made available to the wood products and grazing industries.*

Response: Results of the modeling done with the CRBSUM model were reported for the first and the tenth decades. The 100-year time frame was necessary to discern changes over time in ecosystems that do not adjust rapidly (fisheries, large-scale vegetative structure and patterns, and the like). The EIS discusses in various sections these long-term ecological and environmental changes as benefits – quantified in biophysical terms, but not in economic terms. The first decade effects are mostly relevant from a socio-economic standpoint and are economically quantified to the extent possible. The quantification is focused on employment, rather than benefits in terms of dollar value, because the EIS does not use a formal quantified benefit-cost analysis approach.

Comment: *No formal benefit-cost or other economic efficiency analysis was completed for the Project.*
Response: Because of the size and complexity of the project area, the values involved, and the lack of economic quantification of many of those values, any economic efficiency analysis (benefit-cost, or cost-effectiveness) would have been difficult and expensive. Many of the ecological benefits of the proposed action do not have quantified economic values associated with them, and development of such values would be expensive and controversial. It was felt that focusing economic analysis on levels of outputs and activities and on expected effects on employment, while discussing other longer-term ecological benefits and costs in qualitative terms, would provide the most useful information for both decision makers and local communities for the basin-wide issues to be resolved, and minimize possible confusion that would likely arise from a partial quantitative economic efficiency analysis.

Comment: *It is unclear how the "economically specialized communities" were defined.*

Response: Derivation of "isolated and economically specialized communities" is summarized in the Communities section of Chapter 2 of the Supplemental Draft EIS, pages 194-196. Detailed discussion is found in the *Economic and Social Conditions of Communities* report (ICBEMP 1998).

Comment: *There are no facts supporting estimated changes (percentages and absolute numbers) in jobs.*

Response: Projections of job changes are based on historical data and relationships between levels of outputs/activities and jobs. Sources of data and methodology are described in the EIS and supporting documents. See Chapter 2 of the Supplemental Draft EIS, Employment section; Chapter 4, Effects of the Alternatives on Employment section; Crone and Haynes (2000), and Haynes and Horne (1997).

Comment: *The economic value of Animal Unit Months (AUMs) is not mentioned in the Supplemental Draft EIS, but it can't be ignored.*

Response: *Because the EIS does not use a formal quantified benefit-cost analysis approach, estimates of the dollar value of AUMs were not displayed. Rather, they are shown as physical quantities. This is consistent with how other outputs and activities are reported. The analysis and evaluation did not attempt to weigh the relative economic values of one resource compared to another. Rather, the focus was on the projected degree of change from current levels, as achieved while meeting ecological and restoration goals, and on changes in associated jobs.*

Comment: *The Supplemental Draft EIS does not adequately account for the total economic contribution of the forest products and other resource-based industries. For example, both direct and indirect employment effects should have been modeled. Also, direct and indirect recreation jobs were counted in the analysis, but only*

direct jobs for timber and grazing. The title of the Chapter 4 Employment section should read "Total Direct Employment."

Response: Economic contributions of resource-based industries in the basin, regionally and locally, are discussed in the Supplemental Draft EIS, Chapter 2, Social-Economic-Tribal Component section. Historical and current contributions are also discussed more thoroughly in the Economics Chapter (Horne and Haynes 1997) of the *Assessment of Ecosystem Components*. A conscious choice was made early in the analytical process by the Science Advisory Group and the EIS Team to track only projected direct employment effects, and not secondary (indirect and induced) effects. Because of the size, complexity, and number of variables involved in the project, the intent was to focus on those effects that can be best measured, and not get sidetracked into controversies about the validity of methods and results for measuring indirect and induced results. This approach was applied to all historical and projected jobs, including recreation as well as timber and grazing jobs, and projected restoration jobs. Therefore, all job information is on the same base. The Chapter 4 heading for Total Employment was modified in the Final EIS as recommended to reflect this.

Comment: *"Tourism" and "recreation" are not listed as specialization sectors, unlike timber, grazing, etc.*

Response: The specialization sectors were delineated based on the Standard Industrial Classification (SIC) system maintained by the U.S. Department of Labor. The SIC is used as a standard for data collection and reporting throughout the United States. There is no "recreation" or "tourism" industry defined by the SIC. Rather, those categories are composed of pieces of a variety of other sectors, primarily trade and services, but also including some manufacturing. Services associated with recreation would include such classifications as lodging, restaurant meals, and outfitter/guides. Retail trade would include such classifications as grocery stores; gasoline, oil, and other auto supplies and services; and recreation supplies, such as hunting, fishing, and camping gear. Because of this characteristic of the economic data collection and reporting structure, it is extremely difficult to break out just those portions of the economy directly related to recreation and tourism, without doing primary data collection at the local level. In addition to the high expense, this type of data collection is not practical for a large area like the interior Columbia River Basin.

Comment: *Externalized logging costs were not considered in the alternatives.*

Response: What are usually thought of as externalities of logging (soil compaction, sedimentation, habitat fragmentation, and the like) are controlled through objectives and standards to be applied during implementation of the proposed decision that will substantially limit these effects. In addition, site-specific requirements for implementation of timber harvest will be developed by the local administrative units to achieve ecological objectives that are more broadly stated in the Final EIS.

Timber

Comment: *There is an inconsistency in the economic forecasts of timber production between the Supplemental Draft EIS and the Forest Service Roadless Area Conservation EIS.*

Response: The ICBEMP Supplemental Draft EIS projects basin-wide increases in harvested timber volume in the first decade. Under the action alternatives, the projected increases over the no-action alternative (S1) are 172 million board feet for Alternative S2 and 167 million board feet for Alternative S3.

The difference between the ICBEMP Supplemental Draft EIS and the Forest Service Roadless Area Conservation EIS (Final EIS published November 9, 2000) is due to differing assumptions. The Roadless Area Conservation EIS assumes that there is no substitutable volume of timber to replace volume that is not harvested as a result of the prohibition in policy (Page 3-11 of the Roadless Area Conservation Draft EIS)

Comment: *The plan does not to provide a sustained-yield analysis as required by National Forest Management Act (NFMA) and Multiple-Use Sustained Yield Act (MUSYA).*

Response: Timber production estimates are based on simulations of natural disturbance and succession processes (including natural fire and vegetation growth) as well as human management of fuels and vegetation. This method is different from traditional timber scheduling models (see Table 4-36 in Chapter 4 of the Supplemental Draft EIS). Refined estimates of timber supply and sustainability need to be completed by individual national forests and BLM

districts as they adjust their land use plans. At that scale, sustained yield calculations can appropriately be made to meet legislative mandates. Until then, these initial projections provide estimates of the relative differences among the alternatives at the broad-scale.

Comment: *In order to give a true picture of the changes in timber harvest projected under the proposed action, you should have used the years prior to adoption of Eastside Screens/PACFISH/INFISH etc. as the base for comparison, rather than the years (mid 1990s on) after the effects of those actions were felt.*

You should have used average timber production over the past 5-10 years as the baseline for comparing future timber harvest levels, rather than projecting current production levels into the future. If you had done so, projections of harvest under the action alternatives would have shown a decrease, rather than an increase, from the no-action alternative.

One of the issues that has been avoided is the fact that any future declines in timber outputs would be on top of those that have already taken place. There is no analysis of the effects of continuing to reduce timber outputs.

Response: The NEPA process requires disclosure of the expected physical, biological, social and economic effects of alternatives compared to a no-action alternative. The no-action alternative describes the effects of continuing with current direction – that is, no change in direction or no new actions taken. The Eastside Screens, PACFISH, INFISH, Healthy Rangelands (for BLM-administered lands), and various Biological Opinions have all changed management direction for BLM- and Forest Service-administered lands in the project area since the early to mid 1990s. Alternative S1, the no-action alternative, reflects the continuation of this current management (along with the balance of the management direction in national forest and BLM district land and resource management plans). Comparison of the projected effects of Alternatives S2 and S3 to S1 is appropriate and meets NEPA requirements.

The modeling of the expected timber harvest levels for Alternative S1 was not a straight projection of the most recent harvest year available at the time the modeling was done. Rather, it incorporated historical harvest data for both a 10-year period (1988-1997) and a 3-year period (1995-1997) as the basis for setting prescriptions for various forestland types prior to doing the Alternative S1 model run. This was done to lessen the variability found in harvest levels when using only one or two years' data.

Finally, the background and changes in timber harvest history are recognized as important information for understanding changes occurring in the basin, effects that have already been felt by some communities, and effects that may be felt in the future. In Chapter 2 of the Supplemental Draft EIS, the Commercial Timber Harvest and Other Forest Products, and the Manufacturing Employment sections provide this background. Additional background detail is found in the Economics Chapter (Haynes and Horne 1997) of the *Assessment of Ecosystem Components*

Comment: *The statement "differences in marketing practices among national forests have shown major differences in timber sale success" is misleading. We have been associated with small diameter tree removal for several years and are not aware of marketing differences.*

Response: Some national forests have developed marketing expertise in small diameter and low-value product timber sales and have a very high timber sale success. Others have not seen comparable success.

Comment: *Increasing timber harvests, but mainly with small diameter material, will increase the small diameter material in the mix at mills, making them less efficient, which they can ill-afford because of slim-to-nonexistent operating margins. Higher cost harvesting and lower value material thus will have major [adverse] impacts on timber harvest and lumber processing profitability.*

Provide an analysis of the economic viability of logging (thinning) small diameter, poorer quality material for "forest health" reasons on the scale proposed. Also analyze the effects of skidding distance and logging methodology; lack of such analysis makes the projections of timber outputs too optimistic.

Response: These issues, their potential effects on the profitability of both harvesting and mill operations, and the uncertainty this raises about the marketability of the projected timber harvests under Alternatives S2 and S3 are specifically acknowledged and discussed in the Timber Volume/Predictability and Sustainability section of the Supplemental Draft EIS, Chapter 4, page 151.

Specific logging techniques and methods are too fine-scale to appropriately be addressed by the broad-scale approach of this project. Projected timber harvest volumes used to analyze socio-economic effects of the alternatives were based not on traditional timber harvest modeling methods but rather on the broad-scale landscape disturbance and succession approach appropriate to the broad scale of the project. Refined estimates of timber supply will be determined when the proposed decision is incorporated into local land use plans.

Comment: *Past performance of administrative units in not meeting their timber harvest allowable sale quantities makes it difficult to imagine future timber sale performance achieving the projections of the Supplemental Draft EIS.*

Response: Allowable sale quantities (ASQ) for timber were generally established in land use plans that were completed prior to the adoption in the early to mid 1990s of more restrictive management direction such as the Eastside Screens, PACFISH, and INFISH in response to actual or potential listings of threatened and endangered species. Given this intervening direction, using the ASQ base established under the original plans is not a reasonable or relevant basis from which to measure performance and draw conclusions about expected future performance. There is uncertainty, though, associated with the projections of timber harvest under Alternatives S2 and S3, which is acknowledged and discussed in the Timber Volume/Predictability and Sustainability section of the Supplemental Draft EIS, Chapter 4, page 151.

Comment: *Removal of existing roads in the upland on the Kootenai National Forest will prevent achievement of the projected timber harvest increases.*

Response: The long-term objective of the proposed decision is to progress, in a staged approach, toward a smaller transportation system that can be effectively and efficiently maintained into the future with minimal environmental impact, and to progressively reduce road-related adverse effects on ecosystems. The objectives, standards, and guidelines for roads are discussed in the Road Restoration section of the Supplemental Draft EIS, Chapter 3, pages 106-108. However, no road removal decisions are made in the Final EIS. Retention of roads to meet public demand, resource management and stewardship needs, and tribal needs is recognized. This would include maintaining roads for access in areas that have been identified as in need of restoration.

Comment: *Why is there a projected increase in commercial timber harvest when the loss of large trees throughout the basin is greater than was originally thought?*

Response: The projected increase in harvest under Alternative S2 or S3 will come primarily from thinning small-diameter, lower-quality material. Objectives for vegetation management emphasize retention of large trees and old forest throughout the basin (see objectives for base level terrestrial source habitats, riparian conservation areas, A1/A2/T areas in Chapter 3 of the Supplemental Draft EIS).

Comment: *"Restoration timber sale" is just another word for "clear-cutting".*

Response: The Supplemental Draft EIS, Chapter 4 , section on Factors Influencing Ecosystem Health, includes a subpart titled Timber Harvest, which describes traditional harvest methods and stewardship types of harvest. The action alternatives (S2 and S3) would use a high proportion of stewardship harvest as a restoration tool, focusing on maintaining and improving ecological functions of the forest. Stewardship harvest can be an effective tool in restoring vegetation patterns and disturbance regimes. The largest trees are more likely to remain, as are the more fire-resistant and shade-intolerant trees. Stewardship harvest often uses "thinning from below" methods to give growing space to overstory trees, reduce fuel levels, and/or remove fuel ladders. This type of harvest, or vegetation management, is not the same as clear-cutting harvest methods.

Comment: *The statement in Chapter 2, page 183 of the Supplemental Draft EIS that says part of the reason for the decline in timber harvests from federal lands in the basin in the 1990s was a softening of demand for timber is incorrect. There has been no softening in demand for timber, lumber, pulp or paper.*

Response: The statement in Chapter 2, page 183 has been clarified to read "...from softening export demand for timber..." It is true that overall U.S. demand for wood products has increased, but export demand—which has indirect effects linking back to demand for national forest timber harvest—declined during the Asian economic recession. The increased U.S. demand has been met from increased imports and from increased harvests on private land.

Comment: *Increasing timber harvest in Eastern Oregon by 100 percent over 1998 levels (approximately 240 million board feet) and in Idaho by 51 percent over 1998 levels (approximately 200 million board feet) will significantly and adversely affect forest ecosystems, water quality and fish habitat.*

Response: The reasons and need for vegetation management (primarily thinnings, prescribed fire, and fuels reduction) to improve ecosystem and habitat health and resilience, and to reduce the risks of severe wildfire, are discussed in Chapter 2 of the Supplemental Draft EIS. The management objectives and standards designed to achieve ecosystem restoration and protection goals are described and discussed in Chapter 3. The expected environmental and ecological consequences of the proposed action are described in Chapter 4. The long-term ecological benefits of the proposed action are expected to significantly improve ecological resilience and integrity, outweighing any short-term risks, rather than experiencing adverse impacts to forests, water, and fish.

Comparing projected timber harvests to 1998 harvest levels is misleading. 1998 saw the lowest timber harvest in these areas in at least 15 years. National forest timber harvests for 1995-1997 averaged somewhat over 300 million board feet in Idaho, and about the same in eastern Oregon. In addition, the type of material that will be harvested will be significantly different than in the past. Much of the volume taken through restoration work would be lower-quality, small-diameter material, rather than the large mature trees of past harvests.

Comment: *Pulp and paper manufacturing is not dealt with, either in Chapter 2 or Chapter 4. This is a serious omission.*

Response: In the West, this industry uses mill residues and chips, and while mill residues may decline with a decline in federal timber harvest, the supply of chips and fiber logs is abundant. See Haynes (1999) for a review of chip markets and for price evidence suggesting there are abundant supplies of chips in the interior Columbia River Basin. With the implementation of the proposed action, it is likely the supply of fiber logs will increase because of the small-diameter, lower-quality wood to be removed as part of forest restoration and fuels reduction. (See the Supplemental Draft EIS, Chapter 4, Predictability and Sustainability of Timber Harvest Volume Levels.) In addition, the Resource Planning Act (RPA) timber assessment documents showed that changes in federal timber programs were not found to impact the pulp and paper industry.

Livestock Grazing

Comment: *What does "short term effects on the ranching industry" mean in terms of years?*

Response: "Short-term effect" is considered to be between 5 and 10 years. However, the time in years depends on how rapidly new allotment management plans are completed, how fast rangeland conditions respond favorably to new management direction, and how long it takes operators to adjust to this new direction. It could be reasonably expected as minimum of 5 to 10 years, possibly up to 15 years, varying by area and site-specific conditions.

Comment: *How do AUMs (grazing use) from the last decade compare to those shown projected for Alternatives S1 to S3?*

Response: Figure 2-19 in Chapter 2 of the Supplemental Draft EIS shows historical authorized Animal Unit Months (AUMs) on BLM- and Forest Service-administered lands in the project area. The 1991-1997 average was just over three million AUMs—about the same as projected for continuation of current management under Alternative S1, the no-action alternative. Alternative S2 would have an estimated decrease of about 300,000 AUMs, and Alternative S3 would decrease by almost 350,000 AUMs.

Comment: *The ICBEMP illegally overrides the Taylor Grazing Act, which authorizes the current grazing levels.*

Response: The Taylor Grazing Act of 1934 established and authorized allotment-based grazing (among other provisions) but did not establish actual grazing levels. Grazing levels are determined by site-specific allotment management plans, developed by the administering agency through the National Environmental Policy Act (NEPA) process, with stakeholder involvement.

Comment: Reducing grazing on federal lands may result in over-grazing on state and private lands.

Response: This is a possibility, but not a responsibility of the federal agencies. The federal agencies are required to manage the lands they administer to meet law and regulation, including maintaining and

restoring ecosystem health and integrity for a wide variety of species and uses, including protection of threatened and endangered species.

Comment: *The Supplemental Draft EIS calls for an across-the-board 10 percent cut in livestock grazing in order to achieve some standards. Are projected reductions in grazing with or without rangeland* ***improvement*** *investments? Evidence in the Supplemental Draft EIS does not show that the projected reductions in grazing will result in achieving the recommended standards.*

Response: The projected authorized Animal Unit Months (AUMs) (Table 4-34 in Chapter 4, of the Supplemental Draft EIS) are an estimate of the sustainable grazing that could be allowed as a consequence of management direction implemented for watershed and ecosystem protection and restoration, including rangeland improvement investments. Management direction does not specify a reduction in grazing levels. Rather, it describes desired rangeland conditions. Therefore, changes in authorized AUMs are indirect consequences, rather than prescribed outcomes, of this direction. The suite of management objectives and standards for management of rangeland and livestock grazing, and the projected effects on grazing levels, represent the best knowledge and expertise of the rangeland scientists, managers, and landscape ecologists. As discussed in Chapter 4, page 148, implementing comprehensive, landscape-scale livestock and grazing management practices will introduce a certain amount of uncertainty in forage and livestock production. Monitoring of results will allow necessary adjustments to be made over time to meet the desired objectives.

Comment: *No mention was made of potential changes in demand for beef when discussing variables that may affect the structural nature of the livestock industry.*

Response: Wording has been added in the Livestock AUMS/Production Levels section in Chapter 4 to include changing demand for beef as a variable that can affect the structural nature of the livestock industry.

Comment: *If demand and/or prices for beef increase, could BLM- and Forest Service-administered lands be managed more intensively for livestock grazing to increase supply?*

Response: The intensity of grazing that can take place is a function of the objectives and standards that are implemented to meet ecosystem protection and restoration goals. At the broad scale of this analysis, the amount of grazing projected basinwide and by RAC/PAC areas is all that could take place while still meeting protection and restoration goals. The U.S. per capita consumption of beef has remained fairly constant at around 67 pounds over the past decade, after declining from a 1976 high of nearly 95 pounds (Texas Cattle Feeders Association 2000). Based on this statistic, there appear to be no major ongoing shifts in the U.S. beef market demand at this time.

Special Forest Products

Comment: *Special forest products are not addressed in the Supplemental Draft EIS. Effects of alternatives on special forest products should be estimated.*

Response: Special forest products are discussed briefly in Chapter 2, page 185. As discussed in Chapter 4, page 155, effects of the alternatives on various special forest products were not estimated for the broad-scale analysis of the Supplemental Draft EIS. Because knowledge of special forest products depends on site-specific information, the effects of proposed management activities on special forest products would be analyzed at the fine scale during the step-down process.

Mining and Minerals

Comment: *There is no support for the Supplemental Draft EIS conclusion that there will be no impacts on mining from implementation of the action alternatives.*

Response: Effects of the Supplemental Draft EIS alternatives on permitted mineral and energy operations are inferred from management direction that could hinder potential operations and are displayed on page 155, Chapter 4 of the Supplemental Draft EIS. None of the alternatives would change valid existing rights for mining.

Comment: *The plan incorporates basin-wide standards that will aply to mining that are redundant to, and less flexible than, existing protections.*

Response: The standards designed to protect important fish populations in aquatic A1 and A2 subwatersheds (Chapter 3 of the Supplemental Draft EIS, pages 132-137) and source habitats in Terrestrial T watersheds would be more restrictive in some cases than existing forest plans and BLM land use plans.

Comment: The Supplemental Draft EIS does not adequately analyze mineral and mining adverse impacts, including the socio-economic effects of mineral mining. The proposed action will perpetuate significant adverse impacts on mining exploration and development and on families dependent on mining.

Response: Effects on mineral and energy exploration and development were not estimated for the EIS because of the broad-scale nature of the analysis. Potential effects can only be inferred from management direction that could affect potential operations.

For example, standards and guidelines to protect aquatic and riparian areas already in place on most Forest Service- and BLM-administered lands, as well as additional aquatic and riparian protection under Alternatives S2 and S3, may increase the cost of mining and energy developments by limiting the location (or requiring relocation) of mining operations and facilities (such as mill buildings, settling ponds, sanitary and solid waste structures, and overburden piles.) Alternatives S2 and S3 may require relocating access roads or changing mine design and operation to avoid unacceptable impacts to riparian areas.

More potential site-specific effects on mining operations and related socio-economic effects would be identified through finer-scale analysis during the step-down process.

Comment: *ICBEMP makes only the most modest acknowledgment of mineral mining. As a consequence, the EIS does not comply with the project's mandate to disclose interrelated actions and cumulative effects using scientific methods in an open public process.*

Response: Broad-scale effects on mineral and energy exploration and development were not estimated for this EIS and can only be inferred from management direction that could affect potential operation (discussed on page 155, Chapter 4 of the Supplemental Draft EIS. The surface-disturbing aspects of minerals operations were considered to be fine scale; individual impacts would be addressed at the project planning level. The potential cumulative and Incremental effects of an activity when added to other past, present and reasonably foreseeable future actions are disclosed in the Supplemental Draft EIS, Chapter 4, page 6.

Comment: *All BLM-and Forest Service-administered lands should be withdrawn from mineral entry and exploration.*

Response: Completely eliminating mineral entry and exploration from lands in the project area would not be consistent with the purpose and need for the project, which provides for sustainable and predictable levels of products and services those federal lands.

Hydroelectric Power Generation

Comment: *Hydroelectric power generation is not considered to be adequately discussed, particularly regarding hydropower relicensing. Some respondents want more clear and strict guidelines for complying with relicensing regulations; others are worried that Riparian Conservation Areas may infringe on the rights and conditions of existing hydropower projects.*

Response: Development of hydroelectric power generation facilities is under the authority of the Federal Energy Regulatory Commission (FERC). The Forest Service and BLM have certain authorities and responsibilities under the Federal Power Act to submit recommended terms and conditions to FERC that will be part of the hydropower site license, if approved. These terms and conditions will be designed to achieve aquatic and Riparian Conservation Area (RCA) objectives and standards to the greatest extent possible, under existing valid rights and legal authorities (see RCA Management Direction discussion in the Supplemental Draft EIS, Chapter 3, page 72-74). The terms and conditions submitted by the agencies will vary based on the specific on-and off-sit mitigation, restoration, and enhancement opportunities associated with each hydropower development. Such terms and conditions are likely to raise the development and operating costs of proposed (or relicensed) hydropower plants, potentially affecting their financial profitability or viability.

Effects on hydroelectric power generation were not estimated for this EIS because the broad-scale analysis does not capture the fine-scale nature of specific hydro power sites. Estimates of more site-specific effects (including related socioeconomic effects) will be identified through fine-scale analysis during the step-down process.

Comment: *The Supplemental Draft EIS does not address non-recreation special uses, such as electronic sites, water supply lines, and the like.*

Response: Effects on non-recreation special uses were not estimated for this EIS because of the broad-scale analysis—much too broad to capture the fine-scale nature of specific electronic sites, water supply lines, electrical transmission lines, and the like. Estimates of more site-specific effects (including related socioeconomic effects) would be identified through finer-scale analysis during the step-down process.

Predictability and Sustainability

Comment: *The Supplemental Draft EIS does not provide predictable, sustained flow of economic benefits. It is uncertain whether outputs will be sustainable, or even predictable. This uncertainty and low economic margins mean the projected harvest increase is an illusion.*

Response: The Supplemental Draft EIS, Chapter 3, Social-Economic-Tribal Component, Description and Management Intent: Overall section, (page 86), has been clarified to discuss predictability as well as sustainability of levels of goods and services produced from lands administered by the BLM and Forest Service in the project area. The language of Objective B-O55 has been similarly changed to bring it into consistency with the project purpose and need (Chapter 1).

Discussions of expected output and activity levels, and the assumptions behind their projection, are found in Chapter 4, Social and Economic Considerations, Levels of Outputs and Management Activities Expected from the Alternatives. Discussions of uncertainty surrounding projected grazing and timber harvest levels, and for grazing- and timber-specialized communities are discussed, respectively, in the Levels of Outputs... and the Effects on Communities sections of Chapter 4.

Comment: *Discuss the economic tradeoffs associated with nearly every resource management decision.*

Response: Socio-economic tradeoffs are discussed in a subpart by that title in the Social and Economic Considerations, Cumulative Effects section of Chapter 4 (pages 171-172) of the Supplemental Draft EIS.

Comment: *It is unreasonable to expect that entrepreneurs will risk major investments in isolated rural communities without certainty and predictability of harvest flows.*

Response: A key element of the purpose and need of the proposed action is to support social and economic needs of peoples, cultures, and communities, and to provide sustainable and predictable products and services from Forest Service- and BLM-administered lands. Harvest volumes from the proposed action are projected based on meeting ecological restoration and protection goals in the basin, including habitat maintenance and protection for threatened and endangered species. Therefore, much of the uncertainty and volatility that surrounded timber harvest levels during the 1990s should be significantly reduced.

There are other sources of uncertainty, however, associated with the projected timber harvests that are discussed in the Timber Volume subpart of the Levels of Outputs and Management Activities section of Chapter 4 of the Supplemental Draft EIS. Although desirable, it is rare in any business endeavor that a certain level of product demand, or of supply of inputs, is guaranteed for any significant period of time. While the goal of the agencies is to reduce past levels of uncertainty, there can be no guarantee of eliminating uncertainty altogether.

Employment and Jobs

Comment: *Put people to work doing thinning (and logging) to restore forests.*

Response: Between 1,970 and 2,675 restoration-related jobs per year are expected to be created in the first decade with implementation of the proposed decision. These jobs would be in forest or rangeland restoration work, or prescribed fire and fuels treatment (see Supplemental Draft EIS, Chapter 4, Tables 4-45 and 4-46).

Comment: *Is the 20 percent adjustment factor for grazing-related employment up or down?*

Response: The grazing response coefficient is adjusted upward by 20 percent to reflect that a reduction or increase in federal authorized Animal Unit Months (AUMs) would have a greater effect because of the seasonality of grazing allotments – that

is, a larger increase in jobs if AUMs are increased, and a greater reduction in grazing-related jobs if federal AUMs are decreased.

Comment: *Does "recreation" or "tourism" account for the 81 percent of jobs associated with recreation activities on BLM- and Forest Service-administered lands?*

Response: There was no differentiation made between recreation-related (local resident activities) and tourism-related (nonresident activities) jobs. The Science Team found in the original recreation assessment work that there was little differentiation in recreation activities engaged in between the two groups. Because of the scope of this project, it was very difficult to make a differentiation between recreation and tourism, because of the problems of delineating scale for what would be "resident" and what "nonresident."

Comment: *Do projected employment figures include government employment or employment generated by agency program management expenditures or from federal revenue-sharing?*

Response: No. Employment from all those sources was considered indirect or induced employment and therefore is not included in the projected employment figures.

Comment: *The methodology to estimate timber-related employment is good only if log imports are equal to log exports, which seems unlikely.*

Response: This comment is largely not applicable for the interior west. The job impacts would be overstated for logs that are harvested in the basin and sent outside the project area for processing or export. However, the net effect of log trade was assumed to be minor, as data on log flows suggest that almost all logs are processed locally (within the project area).

Comment: *The timber direct jobs multiplier (7.75 direct jobs per million board feet harvested) has no foundation in Chapter 2 timber harvest data.*

Response: Although not shown directly in the Supplemental Draft EIS, the direct jobs multiplier can be derived from the information in Chapter 2, pages 183-184 and page 191. More detail, and a more direct correlation, can be found in the Economics Chapter (Haynes and Horne, 1997) of the *Assessment of Ecosystem Components*.

Comment: *The intent of the proposal to target management activities to communities appears to disconnect the value of conservation work from the skilled workforce that can perform it. A more effective view would connect skilled workforces with needed restoration work.*

There needs to be a better plan for restoration work that will be authorized and carried out. Just encouraging the hiring of locals is not enough.

Response: The intent of making contracts for services such as restoration work as accessible as possible to local firms and individuals rests on the agencies' belief that "...participation of the local workforce in management activities on nearby Forest Service- and BLM-administered lands is important to many rural community economies. In addition to providing local jobs and income, such participation supports traditional occupations and cultures, and gives communities a stronger sense of involvement with neighboring [agency-administered] lands..." (see Objective B-O56 and discussion). If sufficient skills are not available locally, the agencies will collaborate with and support efforts by state, county and local entities to develop a local pool of those skills. In the interim, the necessary skills will have to be sought outside the local area.

Also, see Objectives B-O55 and B-O64 in the proposed decision, which encourage and highlight the production of goods and services from agency lands, within the capabilities of ecosystems, in the process of managing to meet ecological restoration and protection goals.

Comment: *Please justify the creation of 4,000 new agency jobs through the preferred alternative.*

Response: This is an inaccurate interpretation of the Supplemental Draft EIS. The expected new jobs are associated with projected harvesting and processing of wood products, forestland and rangeland restoration activities, and prescribed fire and fuels management activities in the private sector. It is expected that most of these jobs would be with private companies buying timber sales, or contracted to do the needed restoration and fire/fuels work. The intent is to work through the private sector, not to increase government employment.

Comment: *There is no assurance that replacement industries such as restoration will mitigate direct and indirect economic impacts of dwindling federal timber.*

For instance, there is no information on payroll impacts, which, because of much higher than average wages, affects the forest products industry disproportionately, especially compared with recreation. Job-for-job replacement will have serious impacts on local economies.

Response: When looking at specific woods products manufacturing jobs versus specific recreation-related service jobs, disparities will be found in hourly wages. However, when examined at the community level, net effects of income disparities between individual jobs tend to decrease. Many people argue that a decline in timber jobs, even if offset in actual numbers by recreation jobs, will lead to a total reduction in income for the community, and a consequent negative impact on the local economy. The Economic Chapter (Haynes and Horne 1997) of the *Assessment of Ecosystem Components* found little evidence to support this position. As discussed in the Communities section of Chapter 4 in the Supplemental Draft EIS, this may be the case for some communities with low socio-economic resiliency. However, evidence gathered by the Science Team showed that in many cases there is little long-term overall net adverse effect on the local economies because of growing populations – a condition found throughout the basin – and new jobs created not only in the recreation sector, but also in other economic sectors. The *Economic Impact of Preserving Washington's Roadless National Forests* (Power 2000) report supports that conclusion for rural counties in Washington State.

Comment: *The claim that the number of jobs will increase with the shift to restoration is misleading without a discussion of the quality of those jobs and their ability to provide a living wage. What kinds of jobs are the 3900 being created? Will they support existing economies? Will restoration jobs be family wage, year-round, and sustainable?*

Response: The types of restoration jobs and the income associated with those jobs are discussed in Chapter 4, pages 159 and 161 of the Supplemental Drat EIS. Many resource-related jobs are less than year-round because of weather and other seasonality factors. This would likely be the case with many of the jobs created, particularly the restoration and fire/fuels jobs. However, the degree to which the jobs are less than year-round will depend heavily on area-specific factors – primarily whether needed work at lower elevations can be done during winter months when work at higher elevations is not accessible. Because high levels of restoration work, including prescribed fire and fuels reduction, are proposed for the first decade, these jobs are likely to be sustainable for 10 years, if not longer.

Community Impacts

Comment: *Small restoration service contracts will not be sufficient to sustain local resource-based communities, and the proposed expenditures on restoration will not offset lost income from harvest on federal lands.*

Response: As the study of communities in the basin by Harris, Brown, and McLaughlin (1996) showed, the economies of communities that are economically specialized and that appear to be resource-dependent are often more complex than perceived. The projected restoration work and associated jobs are not intended to be the sole source of assistance for holding local economies together. The intent is that such work will supplement existing economic structures and *help* sustain communities during transition from economically specialized to more diverse economies.

Comment: *The economic restoration priorities map (3-98) implies we want to restore local dependence on boom and bust economic cycles of the resource extraction sector. Instead, we should be offering economic transition packages to these areas.*

Response: The proposed action is intended to help sustain communities during transition from economically specialized to more diverse economies. It is not intended to discourage or mask the need for economic diversification or other economic development efforts in economically specialized areas.

Comment: *Considering communities that are dependent on resource extractive industries, the ICBEMP process should consider alternatives that provide for massive retraining and education for these individuals, and economic development plans to develop industries that will sustain these communities.*

Response: Along with making available goods and services from public lands (within ecosystem capabilities), and focusing restoration priority work near communities that are less economically diverse and more economically associated with goods and services from the public lands, the proposed action includes objectives for the BLM and Forest Service to collaborate with other federal, state, county, local and tribal governments and other entities to foster and support

local economic development (see Objectives B-O59 and B-O63 in Chapter 3). This could include training, as well as other programs and policies developed by appropriate governmental or other organizations, to bring about a diversification of industry and workforce skills.

Comment: *Directing economic activity to less economically diverse rural and tribal communities may have the effect of diverting local energy away from longer-term diversification efforts.*

Response: Directing economic activity to less economically diverse communities is just part of the socio-economic transition strategy, which also includes a suite of other objectives designed to foster and support local economic development, in collaboration with other federal, state, county, local and tribal governments and other entities (see Chapter 3, Support Economic and Social Needs of Communities and Cultures).

Comment: *If drastic and widespread economic impacts on isolated and economically specialized communities will be created, adopt mitigation measures in the ROD.*

Response: Chapter 4 of the Supplemental Draft EIS contains discussions of potential effects on communities (supplemented by *Economic and Social Conditions of Communities* [ICBEMP, 1998] report), socio-economic resiliency, and quality of life. However, effects of the alternatives on specific local communities, businesses, or other areas smaller than the RAC/PACs (such as a county or subbasin) cannot be measured directly because of the broad-scale nature of the analysis. In general, as discussed in Chapter 4, the projected effects on isolated and economically-specialized communities are not expected to be "drastic and widespread." The objectives in Chapter 3 to support the economic and social needs of communities are designed to bring resources to bear on those communities that, during the step-down process and finer-scale analyses, are found to be most in need of assistance during the transition to more diverse economies.

Comment: *Log haul and commuting patterns may mean that logs harvested will not benefit local economies.*

Response: This is recognized in the Supplemental Draft EIS in the Chapter 2 discussion of timber harvest background and trends (pages 183-184) and in the Chapter 4 discussion of wood products manufacturing-specialized communities (page 164).

Comment: *The Forest Service does not understand the economic dependency of communities and other industries, including recreation, on the timber, mining, and grazing industries. The National Environmental Policy Act (NEPA) process requires that a cumulative socio-economic study be done.*

Response: The economic "dependence" of communities and affected industries is discussed in the Supplemental Draft EIS, Chapter 4, Social and Economic Considerations, Effects on Communities section. Cumulative effects are discussed in the section titled "Cumulative Effects."

Comment: *There is inadequate provision for sustained growth and stability of resource-dependent industries. No viable mitigation is proposed.*

The Supplemental Draft EIS does not disclose how it intends to support or help communities. It does not recognize the importance to rural communities of managing public lands in the basin. Little or no assurance is provided to local communities that policies will assist them in being more economically resilient or enhanced.

Projected low timber harvest levels will not be able to sustain many timber-dependent communities and the mills that support them. Timber company facilities, workers, and their communities will be harmed if the selected alternative prevents the Forest Service from providing "a continuous supply of timber" as called for in the Organic Administration Act of 1897.

Response: A key element of the project's purpose and need is to support social and economic needs of peoples, cultures, and communities, and to provide sustainable and predictable products and services from Forest Service- and BLM-administered lands. However, the proposed action does not attempt or intend to maintain resource-dependent industries at past activity levels. With the need to protect threatened and endangered species under the Endangered Species Act, to restore ecosystem function and health, and to reduce the threat of severe wildfire, it is not possible to continue with business as in the past. Sustainable and predictable levels of goods and services can only be provided if the long-term ecological integrity and ecosystem health is maintained.

Achievement of this goal may mean that some communities will not be enhanced and may become less resilient. However, the proposed decision works to prevent sharp declines in resource-dependent industries over the next decade, while still attaining the desired ecological objectives. Thus, basin-wide, authorized AUMs and associated jobs are expected to decline by 10 percent and timber volume available for harvest in the first decade is expected to increase by about 20 percent. The intent – through several avenues, including restoration work focused to the degree possible near communities in need of economic stimulus, as well as collaboration with other federal, state, local and tribal governmental entities to foster economic development – is to help sustain communities during transition from economically specialized to more diverse economies. Chapter 4 of the Supplemental Draft EIS also contains discussions of potential effects on communities (supplemented by the *Economic and Social Conditions of Communites* [ICBEMP 1998] report), socio-economic resiliency, and quality of life.

Comment: *The Supplemental Draft EIS does not consider how the proposed shift in land management from productive uses to preservation and restoration to natural conditions will affect small businesses in the project area, which have the smallest margin for adaptation to change. The adverse impacts of proposed grazing reductions on ranchers' cash flow and financing also are not discussed. Revise the Supplemental Draft EIS to include accurate estimates of social and economic impacts at the individual community level.*

Response: Effects of the alternatives on specific local communities, businesses, or other areas smaller than the RAC/PACs (such as a county or subbasin) cannot be measured directly because of the broad-scale nature of the analysis. Determining community-level impacts would require specifying management objectives down to the local level. The Secretaries of the Interior and Agriculture, in a letter to members of Congress in 1998, directed the project to focus for the Supplemental Draft EIS on resolving a limited number of broad-scale issues at the basin level, while allowing flexibility for other issues to be dealt with at local (fine-scale) levels. Therefore, the community-level effects will have to be identified during the step-down process and as local land use plans are revised. The Supplemental Draft EIS does discuss, without community-by-community specifics, the potential effects of the alternatives on agriculture (grazing) specialized communities and wood products manufacturing (timber) specialized communities, as well as the potential effects of restoration and prescribed fire/fuels management activities on communities (Chapter 4, Social and Economic Considerations, Effects on Communities).

Comment: *The assessment of negligible effects on jobs and income from projected reductions in grazing is false, at least for the Upper Snake River RAC. A 10 to 18 percent reductions in grazing in parts of Idaho will have greater impacts on people (and the environment) than implied by the Supplemental Draft EIS.*

The 249 communities that depend on grazing cattle on public lands are most at risk. Will the loss of 112 to 125 grazing jobs be ranch employees, or will it shut down ranches? I am concerned that the 11 percent decline in ranch jobs will mean I won't be able to choose ranching for my livelihood.

Response: Projected reductions in authorized Animal Unit Months (AUMs) and associated jobs in Idaho range from 1 percent in the Upper Columbia-Salmon-Clearwater RAC to 18 percent in the Upper Snake River RAC. While the Upper Snake River RAC has 52 grazing-specialized communities (See Chapter 4 of the Supplemental Draft EIS, Table 4-48), only 3 of these are isolated. Non-isolated communities are generally able to manage change better than isolated communities, especially those isolated communities that have few other local businesses and experience high unemployment rates (see the Supplemental Draft EIS, Chapter 4, Potential Effects on Agriculture [Grazing] Specialized Communities).

It is projected that under Alternative S2, fewer than 50 grazing-related jobs would be lost in the Upper Snake River RAC. On average, this is about one job per grazing-specialized community. A job lost is always a major event for the individual holding that job, as well as to his or her family. There is no intent to downplay losses to individuals. But at the community level, loss to the local economy will have a much smaller overall impact, particularly in the non-isolated communities. At the broad scale, the loss would be less of an impact on the larger economies. At the scale of this analysis, it is not possible to predict whether those jobs projected to be lost in the grazing industry would be ranch hands or if an entire operation may be affected.

Comment: *Use of private incentives with restoration will have positive community effects (as opposed to negative effects and wasted funds without private incentives).*

Response: Input of innovative approaches for efficient and effective approaches to implementing the projected restoration work is encouraged, and should be given to local and regional BLM and Forest Service staffs during the step-down process.

Comment: *Concentration on long-term protection of environmental amenities in local areas will provide greater long-term benefits to communities than focus on short-term profits.*

The Supplemental Draft EIS says that the projected increase in timber volume from the proposed action is needed to create jobs or otherwise provide for community stability, in contrast to the 1996 "Summary of Scientific Findings." There is no documented link between a sustained timber flow and community stability.

The ICBEMP prescription for more logging to sustain 'timber-dependent' communities is not in the best interest of those communities, but of corporate special interests.

Response: The core of the ICBEMP process and proposed action is to sustain and improve environmental and ecological conditions in the basin. The proposed action also works hard to meet the social and economic needs of people – especially those in isolated and economically-specialized rural and tribal communities – while meeting ecological and restoration goals.

The intent – through several avenues, including restoration work focused to the degree possible near communities in need of economic stimulus; making available goods and services from public lands within ecosystem capabilities; as well as collaboration with other federal, state, local and tribal governmental entities to foster economic development – is to help sustain communities during transition from economically specialized to more diverse economies.

Comment: *Mitigating effects of reduced economic activity by running assistance programs to local and rural economies in transition has proven to be ineffective as shown in the wake of the Northwest Forest Plan.*

Response: The Northwest Economic Adjustment Initiative (NWEAI) was designed to channel assistance of various types from a broad range of federal agencies to communities and individuals adversely affected by declines in federal timber harvest levels within the range of the northern spotted owl (western Washington and Oregon, and northern California), after adoption of the Northwest Forest Plan. Coordination has taken place among the federal agencies, three state governments, tribes, and local governments to implement the NWEAI, which has been a complex and challenging task. While not fulfilling all of the original expectations, it has achieved a remarkable number of successes in terms of funneling federal assistance to communities, providing retraining to displaced timber workers, and filling natural resource restoration-related jobs. For assessments and summaries of the successes and challenges of the NWEAI since 1994, see Christensen et al (1999); Raettig and Christensen (1998); Regional Community Economic Revitalization Team (1998); and Pipkin (1998).

Comment: *Effects on local recreation expenditures by local employees of resource industries, and negative effect on local recreation spending if they lose their jobs, should be analyzed.*

Response: The Social Chapter (Haynes and Horne 1997) of the *Assessment of Ecosystem Components* found that recreation by local residents involved almost all the same activities as recreation by non-residents. Thus, support for local recreation businesses comes from both groups. An implicit assumption of this comment is that loss of timber or other resource-related jobs will lead to a permanent loss of income to the community, primarily through depopulation, or people moving out. McCool and Haynes (1996), in their development of population projections for the basin, did not find this to be the case. In fact, the fastest growing areas were those with ample recreation opportunities that were attracting immigration, leading to more people and more recreation-based jobs. In a more recent study of counties in eastern Washington State, Power (2000) found a similar phenomenon of increasing populations and expanding economies in counties that have also experienced substantial declines in national forest timber harvests since the late 1980s.

Economic Diversity and Resiliency

Comment: *The Supplemental Draft EIS does not reflect the transition away from a timber-based economy and the resiliency of the rural communities. Rural counties have expanded since 1988, despite a 70 to 90 percent decrease in federal timber harvest (Power 2000).*

Unemployment in most rural communities in the Basin has dropped or remains unchanged since the high federal timber sale levels of the 1980s.

Response: The Economics Chapter (Haynes and Horne 1997) of the *Assessment of Ecosystem Components*, the *Economic and Social Conditions of Communities* report (ICBEMP 1998), and the Supplemental Draft EIS all recognize that, with a few exceptions, most counties in the basin have experienced increases in population, employment, and income. In counties not including, or not adjacent to, larger cities, unemployment rates generally continue to be higher than state averages, and per capita real income is generally lower than state averages. This is primarily because of structural differences between more rural and more urban economies.

Positive reports on population, employment and income at the county level (for example, the Economics Chapter (Haynes and Horne 1997) of the *Assessment of Ecosystem Components* and Power (2000) cannot be assumed to automatically hold true for individual communities within those counties, especially those that are isolated and economically specialized. Overall increases in employment cannot be assumed to apply across all economic sectors. As economies transition and diversify, as has been happening in the basin, typically there will be job losses in some sectors, such as wood products manufacturing, while gains are made in other sectors, such as services and trade. Overall per capita income at the county level may rise (Power 2000), but this may mask losses in individual communities or economic sectors. (See Effects on Communities section, Chapter 4 of the Supplemental Draft EIS.)

Comment: *The statement on page 4-161 of the Supplemental Draft EIS is inaccurate: "In general, Forest Service and BLM land use decisions have little influence on factors important to socio-economic resiliency."*

Response: The referenced sentence has been clarified in the Final EIS. It should have read: "In general, Forest Service and BLM land use decisions have little influence *basin-wide* on factors important to socio-economic resiliency." While this statement is true basin-wide, Forest Service and BLM land use decisions can affect factors that make up socio-economic resiliency, especially at the community level. The Supplemental Draft EIS acknowledges this in the Chapter 4 discussion on cumulative effects, on pages 168-169.

Comment: *We find many errors in classifying rural towns: for example, Leavenworth, Washington, is no longer a timber dependent community, nor is Chewelah, Washington. Twisp and Winthrop, Washington, are listed as "high" and "very high" for wood products, but the last sawmill has been gone for 10 years.*

Response: The potential for errors in classifying towns is recognized in the report, *Economic and Social Conditions of Communities* (ICBEMP 1998). A sidebar titled "Clarifying the Data Attributes" on page 10 notes that the employment data on which the specialization indices are based uses projections of information from the early 1990s. It is also recognized that economic conditions are changing rapidly in the basin. Although these data limitations exist, the estimates of potential effects at the community scale provided an important component to the social and economic effects analysis.

Comment: *Population density should not be equally weighted with economic and lifestyle diversity factors when calculating the socio-economic resiliency index. Higher population densities can also produce undesirable effects in communities (noise, pollution, traffic, and the like).*

Response: More detail about the development of the socioeconomic resiliency index used can be found in Horne and Haynes (1999). Assumptions in any methodology are always subject to debate. However, the resiliency index is calculated using population density at the county level, not the community level, which includes all rural and urban, or incorporated and unincorporated, populations. Thus, it would be difficult to find a consistent weighting for population versus the other two factors making up the index.

Relative Values

Comment: *Non-market environmental amenities and high quality living environments are very important to traditional resource-dependent communities in terms of supporting jobs/income/growth, as well as attracting other people and economic activity to the area (Power 2000).*

Response: This is acknowledged and discussed in a number of places in the Supplemental Draft EIS (see the Social and Economic sections of Chapters 2 and 4) and supporting documents. McCool and Haynes (1996), in their development of population projections for the basin, found that the fastest growing areas in the basin were those with ample recreation

opportunities that were attracting inmigration, leading to more people and more recreation-based jobs. This point is also discussed in McCool et al. (1997).

Comment: *There is an inappropriate focus on social and economic aspects at the expense of ecological integrity of public lands. Intact functioning ecosystems will provide long-term benefits far greater than the short-term value of commodity extraction. Recreation opportunities and existence of roadless areas in the basin are approximately 10 to 20 times more valuable than timber and grazing combined. In spite of this, the agencies continue to emphasize short-term economic gains through timber harvest and grazing.*

Response: The core of the ICBEMP process and proposed action is to sustain and improve environmental and ecological conditions in the basin. This includes the protection and restoration of sustainable ecosystem processes and functions, and reflects the agencies' strong conviction that ecosystem health and ecological integrity play very important roles for all parts of the environment—physical, biological, social, and economic.

Roadless areas provide the foundation of many of the A1 and A2 subwatersheds and T watersheds, which are generally protected from new road construction, at least for the first decade. However, as called for in the purpose and need statement in Chapter 1 of the Supplemental Draft EIS, the proposed action also works hard to meet the social and economic needs of people—especially those in isolated and economically-specialized rural and tribal communities—while meeting ecological and restoration goals.

Value may be measured in many different ways. It is important to have information about relative values, whether they be willingness-to-pay (prices or price proxy) values, values associated with jobs and income, values associated with various lifestyles, cultural and traditional values of various peoples, or however else value may be measured. But a greater relative value (measured in just one of several ways) of one type of use of public lands over another does not mean that the "lesser-valued" use should therefore be eliminated completely.

Comment: *This project does not adequately discuss the impacts of proposed activities on all the many significant values of roadless areas. For example, the Supplemental Draft EIS does not disclose the social and economic contributions of unlogged and unroaded forests.*

Response: Discussions on natural areas, which are managed for minimal human disturbance, have been added to the Final EIS in Chapter 2 and Chapter 4. These discussions outline the values (including social and economic) associated with these typically unlogged and unroaded areas.

The discussion of recreation supply in the Land Ownership and Major Uses section of Chapter 2 of the Supplemental EIS talks about the large amounts of primitive and semi-primitive recreation opportunity provided in the basin through wilderness and similar areas, and the comparative advantage that gives the region over other parts of the country in supplying these types of recreation opportunities. A substantial portion of these lands consists of unlogged (old) and unroaded forest. Haynes and Horne (1997) and McCool et al. (1997) go into greater detail concerning the economic net benefit and employment contributions, as well as the social contributions, of these lands.

Unlogged and unroaded forests that have experienced significant fire suppression and have grown vegetation more dense and with higher fuel loadings than were historically present may actually present a potential economic and social cost, as these types of forest are at much higher risk for uncharacteristic and severe wildfire. It is in these types of forests that most of the restoration work involving prescribed fire and fuels reduction is proposed, in order to reduce these potential economic and social costs.

Chapter 4 of the Final EIS contains some discussion of potential impacts to roadless areas, including the added discussion on natural areas. There are also various references to values of unroaded areas for aquatic, riparian, and terrestrial habitats and species.

Implementation and Monitoring of Economic Direction

Comment: *Work collaboratively with affected parties when proposing reductions in grazing.*

Response: Objectives B-O59, B-O62 and B-O63 (see Chapter 3 of the Supplemental Draft EIS) all reflect the intent for local administrative units to collaborate with affected parties and stakeholders in planning, implementation, and monitoring.

Comment: *The rate of implementation of ICBEMP (including required assessment and analysis processes) can economically affect counties through delay in benefits from productions of goods and services or loss of federal revenue-sharing payments.*

There is presently proposed legislation [Secure Rural Schools and Community Self-Determination Act of 2000] that could substantially change the payments to counties program and should be discussed in the EIS.

Response: Potential effects of the rate of implementation are acknowledged and discussed in the Effects on Communities from Delayed Rate of Implementation section in Chapter 4 of the Supplemental Draft EIS.

On October 30, 2000, the President signed the Secure Rural Schools and Community Self-Determination Act. This law will give counties that have experienced (or expect to experience) a decrease in federal revenue-sharing payments because of declines in federal revenues from BLM- and Forest Service-administered lands, the opportunity to elect a constant annual payment amount for the next five years based on the high-three average of payments made during fiscal years 1986-1999. This new law will reduce one source of potential adverse effects on counties and communities from delays in implementation of the proposed action.

Comment: *It is naive to think that we will do much restoration in Riparian Conservation Areas (RCA's), A1/A2 subwatersheds, and T watersheds.*

Response: A1 subwatersheds and T watersheds are not expected to have much priority restoration work done in the first decade, because those areas tend to have the most intact ecosystem functions and processes. Restoration work would be carried out in A2 subwatersheds, which are important core habitat areas but are in need of protection and restoration of ecosystem process and function. (See Supplemental Draft EIS, Chapter 3 discussion of A1 and A2 subwatershed and T watershed objectives and standards, pages 124-137.) RCA's have similar needs which will be identified during Subbasin Review and Ecosystem Analysis at the Watershed Scale during the step-down process.

Comment: *Community, labor force, and mill capacity may be unable or unwilling to handle proposed restoration work and outputs. Implementing the restoration work as proposed will require innovative structuring and packaging of projects and contracts.*

Response: Community, labor force, and mill capacity are all factors of uncertainty for implementation of the proposed action at the local level. These factors will be assessed in much greater detail during the development and implementation restoration projects. Where capacity is a problem, the objectives in the Supplemental Draft (Chapter 3) call for collaboration with other governmental and private entities to support development or improvement of the needed capacity, as part of a broader economic diversification effort. The objectives also call for seeking innovative ways to make work and contracts more accessible to local firms and individuals. Part of the collaboration process will be to encourage innovation that fits local situations, within the range of authorities available to the implementing government agencies.

Comment: *Attempts to "target" contracts to local communities are likely to increase costs, reduce efficiency, and reduce quality of the final product.*
Response: Objective B-O64 (Chapter 3) recognizes that supporting social and economic needs of communities, including economic activity important to rural and tribal communities, can have a higher priority than maximizing cost effectiveness. When concurrent goals of economic equity (employment and income effects) and economic efficiency (cost-effectiveness) exist, generally one has to be achieved at some expense to the other. Both may not be maximized at the same time.

Comment: *Contracting and bid requirements will need to be carefully designed to effectively get desired results. Achieving the Supplemental Draft EIS objectives will also require service and stewardship contracts and job training.*

Response: A variety of innovative approaches such as these will be explored with other partners and stakeholders during the step-down process and implementation in order to best achieve the objectives.

Comment: *There is no provision in the plan for socio-economic monitoring.*

Response: Monitoring and evaluation are recognized as integral to adaptive management and key to achieving goals and objectives (discussed in Chapter 3, of the Supplemental Draft EIS, pages 51-52).

Socio-economic conditions, along with physical and biological resources, are recognized as widely diverse and variable. The intent is for the monitoring and evaluation strategy to be developed through a collaborative intergovernmental, interagency, and interdisciplinary process; based on scientific understanding of interactions among ecosystem components and human activities; affordable; and technically feasible. Monitoring key socio-economic indicators will be part of this strategy.

The implementation monitoring portion of the monitoring plan is included with the Record of Decision (ROD). The remainder of the monitoring plan (for example, effectiveness monitoring) will be completed within two years after the ROD is signed.

Social

General

Comment: *Social topics and issues are not adequately represented in the Supplemental Draft EIS and the analysis of effects. Why didn't the project team have more social scientists?*

Response: Social scientists were included in the development of the project science and in the development of management direction. The expertise of social scientists is incorporated into the Final EIS. Social issues and topics are discussed in the social-economics tribal component sections of the EIS.

Comment: *For some respondents, the direction and analysis do not adequately address the impacts of the proposed action on all types of social values. For others the impacts on communities have been stressed too much.*

Response: Chapter 4 has specific information about the potential impacts of the direction on tribes, communities, and people across the project area to the degree that such effects can be estimated at the broad scale of this EIS. This information on estimated effects has been provided at the basin-wide scale and at the scale of the RAC/PAC areas. The publication *Economic and Social Condition of Communities* (ICBEMP 1998) was distributed to more than 9,000 people for public comment. The information it provided is also important to help understand the potential effects to people at this broad scale.

One of the purposes for the project was to determine if the social needs of people (local, rural, and national) could be met by an ecosystem-based strategy that provides for sustainable ecosystems and the needs of people. The Final EIS provides that balance, to the extent possible, given federal law, the needs of ecosystems, and the needs of people.

Comment: *Why doesn't the direction focus more on education, outreach, and information as a way of lessening the social impact of people on bears or other natural resources?*

Response: The Final EIS endorses the use of information and education to foster public understanding of issues and to promote environmental sensitivity toward resource issues. However, education as management direction is more appropriate as a standard in a fine-scale planning document, where it can address specific educational opportunities in specific geographic areas for site-specific issues.

Comment: *Science has delineated what is needed for ecosystem management. By whom and how will the needs of communities be decided?*

Response: The purpose and need of this project is to balance the biological and physical needs of ecosystems with the needs of people and society. An in-depth analysis of effects on social and economic systems, including two reports to Congress on these effects, were completed by social scientists assigned to the project.

Comment: *Are there scientific studies to verify the statement in Chapter 2, page161, that areas offering high quality recreation and scenery are also experiencing rapid population growth?*

Response: The Social Chapter (McCool et al.1997) of the *Scientific Assessment* identified that federal lands will play an increasing role of providing amenity values such as scenery, recreation, and open space. They also found that the fastest growing areas were those with ample recreation opportunities that were attracting immigration, leading to more people and more recreation-based jobs. Also, Johnson and Beale (1995) provide more discussion about the correlation of recreation/tourism activity at the county level and population growth in the county.

Comment: *The Supplemental Draft EIS should discuss how influxes of transient populations from urban areas influence rural communities.*

Response: Population dynamics and growth across the region were analyzed in the Economics Chapter (Haynes and Horne 1997) of the *Scientific Assessment* and summarized in Chapter 2 of the Supplemental Draft EIS. An understanding of population growth in the western United States and in the interior Columbia River Basin is important for setting the social and economic context for natural resource issues and the management of federal lands. Assessment of more specific situations, such as potential social and economic effects on specific rural communities, would be done during the step-down process.

Comment: *Local governments and residents must be real partners with the federal agencies and have their ideas and needs given primary consideration in all decisions, particularly those that may affect their well-being, local economies, private property, land use planning, customs and cultures.*

Response: The significant role played by county and local governments in rural communities and economies has been recognized and evaluated in several science documents (Haynes and Horne 1997; McCool et al.1997) and related science publications, and through the collaboration process used in the development of the Supplemental Draft EIS.

In Chapter 3 of the Supplmental Draft EIS, Social-Economic-Tribal Component, objectives and standards provide the direction for coordination and collaboration by the federal land managing agencies with state and local governments and other entities. While the overall intent is to support economic and social needs of communities and cultures close to or dependent on resources from Forest Service- or BLM-administered lands, these are national public lands, subject to national law, regulation, and policy. There is no guarantee that local needs will always receive primary consideration in decisions affecting Forest Service- and BLM-administered lands in the basin.

Comment: *The Supplemental Draft EIS needs to identify specific areas where use of prescribed fire will pose greatest risk in terms of (1) fire hazard due to heavy fuel loadings, and (2) severe smoke impacts near major populated areas.*

Response: This will be analyzed and disclosed during the step-down process (Subbasin Review and Ecosystem Analysis at the Watershed Scale) and local project-level implementation. Such information is too site-specific to have been analyzed at the project's broad scale. At the basin-wide and RAC/PAC area scale, fire as part of succession/disturbance regimes in forestland is discussed in Chapter 2, pages 42-61. Effects of past fire suppression actions on forest health is discussed in Chapter 2, pages 222–229. Estimated effects of smoke from wildfires and prescribed fires on air quality and visibility at the broad scales are discussed in Chapter 4, pages 24-38.

Comment: *Strong consideration should be given to adding "protection of public property" to the list of priorities for fire suppression in the standards (Chapter 3).*

Response: The existing list of priorities (human life, public safety, private property, and improvements or investments) are those that will receive first attention in fire suppression efforts. It does not mean that protection of public property (forests or rangelands) would not be undertaken if the expected effects of wildfire are determined to be unacceptable; however, the other categories would be considered of higher priority.

Comment: *There is a concern that the science does not support logging to reduce the potential impacts of fire on the urban interface.*

Response: Restoration activities are proposed to decrease the risk of uncharacteristic fire. These activities focus on reestablishing vegetation to a range of variability more consistent with the ecological factors that influenced the historical ecological pattern of fire in the project area. Improvements in these conditions can be made by concentrating all types of restoration activities in these areas. Activities that can specifically help reduce the fire risk include: thinning, timber harvest, prescribed fire, fuel reduction activities, green strips, brush reduction, adequate access for suppression and responsive effective suppression efforts.

Scenery

Comment: *There is not much in the Supplemental Draft EIS describing the scenic resources of the basin. Scenery is important to the second home and retirement industries, but has not been discussed.*

Response: The Social Chapter (McCool et al.1997) of the *Scientific Assessment* discusses scenery in terms of landscape themes and scenic integrity (pages 1960-1964). This discussion was carried forward in condensed form into the 1997 Draft EISs. There is a

shorter statement of the importance of scenery to basin residents and visitors in the Supplemental Draft EIS (page 178). Scenery, in terms of aesthetic attraction of landscapes or more localized features, is a factor of recreation use and supply, as well as of quality of life for basin residents. Changes to scenery from the ICBEMP Alternatives could not be modeled at the project's broad scale. Scenery issues are more appropriate at the local level—along with recreation issues, roads, and vegetation management as they interact with scenery and—during the step-down process at the mid and fine scales.

Comment: *What is meant by the reference to "scenic integrity" in the Chapter 2 section on Fire Suppression and Human Uses?*

Response: Scenic integrity is a term used in the Social Chapter (McCool et al.1997) of the *Scientific Assessment* and in the 1997 Draft EISs. It is a measure of relative fragmentation of landscapes. High scenic integrity is a measure of landscapes that have little to no human-caused fragmentation. Scenic integrity is not necessarily the same as high quality scenery, or scenery with high visual attraction for people.

Recreation

Comment: *There should have been a full discussion in the Supplemental Draft EIS of the recreation resources of the interior Columbia River Basin; the uses, values and employment associated with those recreation resources; and expected changes in recreation opportunities and expected uses, whether caused by implementation of ICBEMP or from other sources.*

Some of the most important implications of recreation are its effects on second home and retirement industries. This has not been discussed.

Response: The importance of the recreation resource in the basin and its contribution to the local and regional economies is recognized in the general discussion of recreation supply, use, and management issues found in Chapter 2, pages 175-178, Land Ownership and Major Uses, and in the shorter discussion of recreation-related employment found in the Overview of Employment in Chapter 2, page 193. Much more detail on recreation in the project areas and its contribution to the region and nation can be found in Haynes and Horne (1997), McCool et al. (1997), and Crone and Haynes (1999).

The reasons for not projecting changes in recreation supply or use in the Supplemental Draft EIS are discussed in Chapter 4, page 149, Levels of Output and Management Activities Expected from the Alternatives . It is a matter of scale. The types of factors that are most likely to affect supply of various recreation opportunities are identifiable at the medium to fine scale, related primarily to specific decisions on roads and access that would be made at the subbasin and local levels during the step-down process, and on effects of implementation of management objectives and standards at the local level (for instance, for Riparian Conservation Areas). At the broad scale modeled for this project, changes in those factors could not be identified; thus, expected changes in recreation supply or use could not be projected.

Comment: *A clear statement needs to be included in the purpose and need statement that recreation is a social need. This planning effort has not recognized that role in proportion to its current and future importance.*

Response: The second bullet of the "purpose" part of the purpose and need statement in Chapter 1, page 10, of the Supplmental Draft EIS says "Support economic and/or social needs of people, cultures and communities..." The term 'economic and social needs' covers a wide variety of resource uses and effects, including recreation. It was not possible to specifically single out recreation without adding a long list of other uses and values. However, the importance of the recreation resource in the basin and its contribution to the local and regional economies is recognized in the general discussion of recreation supply, use, and management issues found in Chapter 2 and elsewhere.

Comment: *If you couldn't project actual changes in recreation, it seems that at a qualitative estimate would be better than nothing at all; or, at the very least, the direction of change could have been estimated and discussed.*

The demand for developed recreation and increased access to federal resources will undoubtedly increase as the basin's population increases. Proposals for drastic road closures across federal lands are in conflict with these projected increases in demand for motor-related recreation access. Implementation of ICBEMP will reduce road-related recreation supply and use.

Response: Until specific decisions are made on roads and access at the subbasin and local levels, and local estimates of effects of Riparian Conservation Area and other management objectives and standards have been made, based on local data, it is not possible to estimate recreation trends or access demands. However, it is likely that the abundance of roads in existence may still leave ample recreation access, even after some roads are closed, especially if careful planning is done at the local level to minimize impacts on major access routes. In addition, closing some roads should increase the amount of recreation opportunities in less developed settings.

Comment:
For some respondents:
Based on other studies, we question that the demand for unroaded recreation is increasing, especially relative to the demand for recreation requiring motorized access.

For other respondents:
Primitive recreation use will grow dramatically with proposed broad protections. Associated jobs will increase as well.

Response: The *Scientific Assessment* found that demand for unroaded types of recreation is remaining relatively constant. Chapter 2, page 178, in the Supplemental Draft EIS has been changed to reflect this. The emphasis in that statement is intended to be on maintaining the supply of unroaded recreation opportunities to meet existing and future demand, both regionally and nationally. Nationally, primitive camping, backpacking and hiking recreational opportunities are expected to be among those in shortest supply over the next few decades (McCool et al. 1997).

Comment: *With an aging population and high motor viewing usage, we question whether the caption for the photo on 2-181 about rapidly growing trail use in less-developed areas is true.*

Response: According to the Social Chapter (McCool et al. 1997), of the *Scientific Assessment*, projections made by the states of Oregon, Washington, Idaho, and Montana in their Statewide Comprehensive Outdoor Recreation Plans showed that trail use, a majority of which takes place in less developed settings, is expected to be one of the fastest-growing activities in all four states (emphasis added). In this case, "less developed" should not be equated to unroaded or primitive. Rather, it simply means hiking in natural areas or settings that are not urban or with substantial human development. That could include hiking in local or state parks that may be roaded, and hiking on interpretive or nature trails associated with campgrounds or roadside view sites.

Comment: *I am concerned that without any guidance on recreation from ICBEMP administrators, existing and possible future recreational uses of public lands in the equation will be ignored.*

Response: Recreation issues will be addressed during the step-down process at the mid and fine scale by local administrative units. In the meantime, existing local plans contain direction related to recreation that will be followed, in accordance with objectives and standards in the Final EIS.

Comment: *The Supplemental Draft EIS does not address recreation special uses such as ski areas and recreation residences.*

Response: Recreation special uses were not identified as a basin-wide issue in need of resolution through the broad-scale approach of this project. These special uses (for example, downhill ski areas, recreation residence groups, and outfitter-guide businesses operating under special use permit) are site-specific in nature. During implementation of the proposed decision and the step-down process, fine-scale analysis will identify any potential recreation special use issues that may be potentially affected by implementation. Resolution of such issues will be explored within the framework of local land use plans, as amended by objectives and standards in the Final EIS. Expected effects will be documented through the NEPA process at the local level.

Wilderness, Roadless, Unroaded Areas

Comment: *Some respondents believe that the Supplemental Draft EIS provides too much protection for unroaded areas, wilderness areas, and national monuments. Others feel that there is too little protection for these areas.*

Response: The Supplemental Draft EIS addresses the ecological values that unroaded areas contribute to species protection, habitat expansion, and recovery of certain source habitats the have declined substantially from historical conditions.

The management direction calls for the maintenance and restoration of these areas wherever practical. The Supplemental Draft EIS does not, however, create specific allocations of roadless areas. The management direction neither changes the status of designated wilderness or national monuments within the interior Columbia River Basin nor proposes additional acres of wilderness or the designation of additional monuments.

Comment: *None of the proposed alternatives provides for any permanent protection of any lands as wilderness.*

Response: Because the designation of federal land as wilderness can only be done by the U. S. Congress, wilderness recommendations must be submitted by the President to the Congress for their consideration and action. Identifying lands as suitable for wilderness is not within the scope of this EIS.

The BLM and the Forest Service manage designated wilderness areas and their resources in part by ensuring that appropriate activities are authorized and monitored regularly. The preferred alternative includes ecosystem-based direction that would enhance management of wilderness.

Comment: *Some feel that the management direction should prohibit road building in roadless and other unroaded areas to protect and promote roadless values. Others feel that road building should be allowed in roadless areas to allow restoration to occur.*

Response: The overall intent of ICBEMP roads direction is to reduce road-related adverse effects through a variety of techniques including obliteration, closures, and road improvements and to progress, in a staged approach, toward a smaller transportation system that can be effectively and efficiently maintained into the future with minimal environmental impact. Subbasin Review, Ecosystem Analysis at the Watershed Scale, and roads analysis will systematically and hierarchically evaluate existing road system needs and establish priorities for road restoration and closure.

These analyses would consider the whole watershed and weigh the risks to resources or people from such disturbances as uncharacteristic wildfire compared to the risks to habitat values for species potentially affected by roads, such as anadromous fish and wide-ranging carnivores.

While not prohibited by ICBEMP direction, the building of new roads in unroaded areas would be very rare. In the event that the analysis processes indicate that restoration is needed in an area where there would be a need to build a road, the proposed action would need to comply with the ICBEMP management direction and all applicable laws including the Endangered Species Act and NEPA. Roadbuilding in inventoried roadless areas would be governed by the Forest Service Roadless Area Conservation Final Rule, anticipated in December 2000.

Comment: *Why did the* Assessment of Ecosystem Components *(Quigley and Arbelbide, 1997) find that the protection of unroaded areas 1,000 acres or larger should not be protected? What science are they using to back up this argument?*

Response: The *Assessment of Ecosystem Components* (Quigley and Arbelbide 1997) found in their modeling that a "reserve" system created by landscape-scale disturbances is difficult to maintain. Reserves were found to have a high potential for large wildfires, and increased expansion of exotics weeds. The potential to increase fragmentation of habitats was higher in the "reserve" areas under this analysis. These effects were limited by the broad geographic and time scale of the analysis, the coarse resolution of the data, and limitations on the ability to infer populations results from habitat analysis and gaps in knowledge (*Status of the Interior Columbia Basin, Summary of Scientific Findings*, ICBEMP 1996).

Comment: *The Supplemental Draft EIS does not adequately discuss the impacts of proposed activities on the many significant values of unroaded areas.*

Response: The Supplemental Draft EIS contains direction that is intended to protect the values of unroaded areas. Examples include objectives to: minimize miles and effects of roads; develop broad-scale connectivity of terrestrial and aquatic habitats; sustain hydrologic and other ecological processes; prevent further loss of terrestrial source habitats; conserve and maintain aquatic habitat conditions; and maintain and restore water quality. The Supplemental Draft EIS analyzes and discusses the effects of the alternatives on all these characteristics and values of roadless areas; however, the effects are described for the broader landscapes of the project area and the region and are not restricted to roadless areas.

Comment: *Subjective terms such as "need," "rare" and "minimize" that show up in the discussion of intent are not effectively clarified or quantified in the associated objectives and standards. Thus, these crucial issues will be addressed in a highly discretionary context at the local level.*

Response: The intent of the management direction is to provide a broad-scale ecological context for site-specific Forest Service and BLM decisions. While managers would have discretion to make local decisions, those decisions would be made following appropriate finer-scale analysis and planning processes and would have to be consistent with objectives, standards, and all applicable laws. The language in the management intents and rationales in Chapter 3 is intended to convey this flexibility.

Comment: *ICBEMP does not consider the wide range of social and economical benefits of unlogged and unroaded forests. The management direction misinterprets the value of reserves and the ecological significance a reserve system would contribute to species protection and protection of rangeland habitats.*

Response: The *Scientific Assessment* and the Supplemental Draft EIS management direction highlight the values of unroaded areas (including inventoried roadless and BLM wilderness study areas) to aquatic and terrestrial species and to quality of life, recreation, and other social and economic values. However, the science also points out that a "reserve" system in a dynamic and disturbance-based ecosystem such as the interior Columbia River Basin, may not be the most effective method for promoting the areas natural processes. These dynamic systems need to adjust to ever-changing conditions and as a result, the management direction promotes both protection and restoration of these lands.

The management direction proposes the protection of 6.5 million acres of aquatic habitat (3.1 million of which are outside designated wilderness areas) in A1 subwatersheds and the protection and restoration of 6.8 million acres of aquatic habitat (6.0 million of which are outside of wilderness areas) in A2 subwatersheds. Protection is also proposed for 14.3 million acres of terrestrial source habitat in T watersheds (9.5 million of which are *within* wilderness areas). Any proposed restoration is designed to resemble historical disturbance to help bring these systems closer to their historical patterns of change.

Years of fire suppression, logging and grazing require that restoration in some of these dynamic ecosystems be conducted to promote the long-term health of the region. Simply creating a reserve system would not address the significant threats some of these areas face from wildfire, noxious weeds, and insect and disease infestation. Logging can be an effective tool to achieve desired vegetative characteristics, along with fire and other management activities.

ICBEMP direction focuses on achieving desired conditions as expressed in the objectives, while allowing specific tools to be selected at the local level. Nothing in the management direction diminishes the value of the existing 11.3 million acres of the federal land in the project area that are already congressionally designated as wilderness or those areas currently protected as wilderness study areas.

Comment: *The Supplemental Draft EIS did not incorporate the best available science regarding roadless areas, conservation biology, core preserves, and connectivity.*

Response: Ecological values and conditions of roadless areas are addressed in the Supplemental Draft EIS through an emphasis on reducing new road construction from past levels, rarely providing for new roads in currently unroaded areas, closing or obliterating unneeded roads and restoring ecological values, and improving needed roads to minimize adverse environmental effects.

Conservation biology concepts such as core reserves and landscape level processes and management are key features of direction for areas spatially designated for conservation or restoration of aquatic and terrestrial habitats (such as A1 and A2 subwatersheds, T watersheds, and riparian areas) and in objectives and standards within the Landscape Dynamics Component section of Chapter 3. Base-level direction provides for integrated management for terrestrial and aquatic habitats, as well as human components, across the landscape. There is much direction specifically addressing connectivity for both terrestrial and aquatic species, including: B-O49, B-O50, B-S53, B-O52, R-O2, R-O4, R-O14, R-O16, R-O21, R-O23, R-O25, T-O1, A1-O1, A2-O1.

Comment: *The Supplemental Draft EIS does not consider the limited authority of federal land managers to*

control the impacts of existing and potential mineral mining related activities on unroaded areas of high ecological integrity.

Response: The rationales for Standards B-S34, A1-Sa, and A2-S4 have been revised to make it more clear that valid existing rights may limit land management agency discretion in some cases, such as in certain situations under the mining laws. These standards require the use of existing authorities to minimize the impacts of uses conducted pursuant to valid existing rights. For example, where lands are not withdrawn from mining, or where valid mining claims exist in withdrawn areas, agencies impose such reasonable conditions on mining activities as necessary to protect public resources.

Comment: *The Response to Comments on the Draft EISs does not provide an appropriate or rational response to the proposal to include an alternative that would put old growth and roadless areas off limits to logging (Appendix 4, page 4-25; that roads would be rare in some roadless areas).*

The Response to Comments also does not address the request for a comparison of Oregon Governor Kitzhaber's proposal for a long-term regional approach with the ICBEMP strategy.

Response: The project emphasizes outcome-based direction, aiming to achieve certain conditions and processes across the landscape rather than to prohibit or require specific activities or management actions in any particular area. Road management direction is intended to reduce or prevent road-related effects on ecological values, not to prohibit road construction per se in any particular site-specific area. While roads determined to be no longer needed would be closed or obliterated, those roads that are deemed necessary would be improved as needed to minimize adverse environmental effects, and new roads into currently unroaded areas of any size would be rare. The intent of the old-forest direction is to maintain old-forest characteristics and prevent loss of old-forest conditions from natural and human-caused disturbances. Over the long term, the intent is to increase the extent of old forests, promote long-term sustainability of old forests, and preclude uncharacteristically severe wildlfire through activities such as prescribed fire and thinning. To prohibit all management activities in unroaded areas and old forests would ignore the scientific findings that in some instances restoration may be needed (such as thinning or prescribed fire) to promote the long-term health of these areas.

In the Supplemental Draft EIS, Alternatives S2 and S3 contained numerous features that are compatible and consistent with Governor Kitzhaber's forest health proposal, which was considered by the EIS Team along with other studies and plans in the development of the alternatives. In the Final EIS, the proposed decision identifies and maps specific important habitats with intact succession/disturbance patterns that are strongholds for aquatic species (A1 and A2 subwatersheds) or important as source habitats for families of terrestrial species (T watersheds). It also identifies subbasins with broad-scale priority for restoration and provides broad-scale restoration direction that links ecological needs and opportunities to social and economic (including tribal) needs and opportunities.

Comment: *The Supplemental Draft EIS does not identify roadless area locations.*

Response: Areas of zero to low road density (and whether they overlap with high carnivore habitat abundance) are shown in Chapter 2 of the Supplemental Draft EIS, Map 2-116, page 2-115. Inventoried roadless areas are not identified specifically because they do not receive specific management direction in the Supplemental Draft EIS.

Comment: *The Supplemental Draft EIS did not consider and may be inconsistent with the Forest Service Roadless Area Conservation proposed rule and proposed Transportation Policy currently under development. The Final EIS should fully analyze and present how the proposed Forest Service Roadless Area Conservation EIS and the Road Management Strategy will interface with the ICBEMP EIS.*

The Administration's "proposal" relates to both inventoried and uninventoried "roadless" lands which represent significant areas of public land resources, and which are readily mapped and available but were not specifically included in the ICBEMP analysis. It is inappropriate to simply represent this scenario by saying, "The project's Record of Decision will require management actions to be consistent with the finalized roads policy."

Response: Both the Forest Service Roadless Rule and the Forest Service Transportation Policy (Roads

Policy) are in draft stages, so it is not possible for the Final EIS to analyze in detail specific features that may change before these proposals are finalized. However, the Final EISs for ICBEMP, the Roads Policy, and the Roadless Area initiative all use the same science as the foundation for their respective effects analyses. In addition, the Roadless Area Conservation Final EIS considers the direction in the ICBEMP preferred alternative from the Supplemental Draft EIS in its analysis of cumulative effects. The ICBEMP Final EIS incorporates direction from the Roads Policy into the proposed decision (for example, the requirement to conduct roads analysis).

The ICBEMP proposed decision allows minimal ("rare") entry into unroaded areas and is expected to be minimally affected by the Roadless Rule. Currently, the ICBEMP proposed decision is consistent with both the proposed Roadless Rule and the proposed Roads Policy. Appropriate and necessary connections will be made as progress is made on completing the final Roadless Rule and final Roads Policy. The ICBEMP Record of Decision (ROD) is expected to be signed after the Roads Policy is finalized, and the ROD will require management actions to be consistent with the final Roads Policy.

Comment: *The Roadless Area Conservation Proposed Rule is resulting in new information that is not compatible with information in the Supplemental Draft EIS. The project's Science Advisory Group and EIS Teams used a different assumption for the future management of inventoried roadless areas than the Preferred Alternative for the Roadless Area Conservation Draft EIS. Therefore, the Supplemental Draft EIS alternatives will be invalidated with the implementation of the Proposed Roadless Area Conservation EIS and Record of Decision. The ICBEMP Final EIS should be deferred until the Roadless Area Conservation Rule is finalized.*

Response: ICBEMP direction is broader in scale and more outcome-based than the proposed Roadless Area Conservation Rule. None of the direction in the ICBEMP Final EIS focuses directly on inventoried roadless areas; rather, it specifies conditions and processes that are to be achieved. The data and information being brought forward and analyzed in the Roadless Area Conservation Rule do not substantially affect the analysis and direction being developed under ICBEMP, because ICBEMP direction proposes little or no specific management direction within inventoried roadless areas. It is not necessary for the ICBEMP Final EIS to be deferred until the Roadless Area Conservation Rule is finalized. However, appropriate and necessary connections and adjustments will be made as progress is made on completing the final Roadless Rule. The ICBEMP Record of Decision will clearly state that management actions shall be consistent with the finalized national level roadless policy when it is completed.

Comment: *Forest Service roadless areas make up only a portion of the roadless lands in the project area. By saying that the Forest Service Roadless Area Rule is sufficient, a significant amount of lands that the BLM manages as wilderness study areas is ignored.*

Response: The *Scientific Assessment* and the Supplemental Draft EIS management direction highlight the values of unroaded areas (including inventoried roadless and BLM wilderness study areas) to aquatic and terrestrial species and to quality of life, recreation, and other social and economic values. ICBEMP direction focuses on achieving desired conditions as expressed in the objectives. The Forest Service Roadless Area Rule would provide direction for inventoried roadless areas only, and would be in addition to ICBEMP direction for protection and restoration of other unroaded area values, including wilderness study areas. Nothing in the management direction diminishes the value of the existing areas currently protected as wilderness study areas. The EIS does not alter the status of, or the regulations that guide, the management of BLM-administered wilderness study areas.

Roads, Transportation, Access

Comment: The direction in the preferred alternative should be consistent with the Forest Service's and BLM's national policies regarding road management and Off Highway Vehicles (OHVs).

Response: The Forest Service's Roadless Area initiative examines the issue of future management of inventoried roadless areas. The Forest Service's proposed National Roads Policy focuses on managing the existing road system within budgetary and environmental constraints.

The ICBEMP Final EIS, the National Roads Policy, and the Roadless Area initiative all use the same science as the foundation for their respective effects analyses, and they are consistent with each other. In

addition, the Roadless Area Conservation Final EIS considers the direction in the ICBEMP Supplemental Draft EIS preferred alternative in its analysis of cumulative effects. The ICBEMP Final EIS incorporates direction from the National Roads Policy into the proposed decision (for example, the requirement to conduct roads analysis). The ICBEMP Record of Decision (ROD) will require management actions to be consistent with the final Roads Policy.

The public comment period for the BLM's national Off-Highway Vehicle (OHV) Strategy closed on August 31, 2000. Using the input it received, the BLM intends to develop guidance to be used by its field offices in developing local solutions to OHV conflicts. This guidance is scheduled to be completed by the end of November 2000. The ROD for the ICBEMP will require management actions to be consistent with the OHV Strategy.

Comment: *Several commentors addressed the ten-year time limit for developing or revising access and travel management plans. Some were concerned about the agencies' ability to meet this deadline with existing funding levels and other obligations, agreements, and priorities. Others proposed shorter time limits, particularly for high restoration priority watersheds. One commentor suggested that a prioritization system be used for completing the plans.*

Response: The intent of the ten-year time limit is to allow adequate time for decisions on management of roads to be made at the local level (with involvement from interested and affected parties) through the access and travel management planning process. These decisions will be based on a scientific roads analysis. Roads analysis is designed to provide the information and context needed to effectively and efficiently reduce identified road-related adverse effects while considering the need for public access, tribal rights, and resource management. The EIS Team determined that a ten-year time frame strikes a balance among feasibility, the use of a collaborative planning approach, and the need to address adverse effects in a timely manner.

Comment: *The EIS should include specific proposals for road elimination based on geographic analyses already made by the agencies involved.*

Response: Specific decisions on which roads to close and how to close them is more appropriately left to local decision makers. It is not the intent of the Final EIS to make site-specific decisions on changes in road use. Roads analysis will be incorporated into or conducted concurrently with planned Subbasin Review, Ecosystem Analysis at the Watershed Scale, and/or site-specific project NEPA analysis. This approach allows local BLM and Forest Service administrative units to use roads analysis and other sources of information in their land use and project planning processes.

Comment: *Some commentors want the preferred alternative to establish a road density limit.*

Response: Road density standards are most appropriately determined at the local level through the land use planning process. The proposed decision directs the federal land management agencies to conduct science-based analyses that look at the effects and benefits of roads within the capability of the land. These analyses provide decision makers with important information with which to make road density decisions when developing Access and Travel Management Plans and other decision documents.

Comment: *Several respondents request that specific requirements (such as best management practices) be established for the decommissioning, construction, and maintenance of roads. Others express support for the broad strategy in the preferred alternative which uses fine scale analyses to set specific requirements.*

Response: The proposed decision directs the federal land management agencies to use the step-down process to gather and apply the best available science and information. This approach enables the agencies develop effective best management practices (BMPs) that are appropriate to site-specific conditions. The agencies will apply these best management practices when planning, designing, constructing, and maintaining roads and other site-specific actions. However, because the control of road-related effects is an ongoing process and the science continues to be developed, adaptive management must be used to refine BMP design as necessary. To allow for adaptive management and in recognition of the diversity of resources and conditions in the project area, no basin-wide requirements related to roads are included in the preferred alternative.

Comment: *Several commentors want the beneficial uses of the existing road system considered in the EIS. In*

particular, they feel that roads are needed to access areas being affected by fire, floods, or forest health problems.

Response: The Final EIS discusses the economic and social importance of roads in Chapter 2. Roads provide access for multiple uses such as timber harvest, grazing, mining, recreation, subsistence uses, and fire suppression, among others. Roads also provide access to private lands within and adjacent to federal lands, and roads can have historical and cultural values. Non-access benefits of roads include providing edge habitat for wildlife, and acting as firebreaks. Since changes in roads (including conditions, locations, and access) were not modeled at the broad scale (because of data limitations), impacts to these beneficial uses could not be addressed in the Final EIS. These effects will be evaluated at finer scales during the step-down process.

Comment: *The standard that requires improvement of existing structures if there is a substantial risk to riparian conditions (Standard R-S5) should be clarified to specify how risk will be determined, acknowledge funding limitations, and establish priorities.*

Response: The rationale statement that accompanies Standard R-S5 defines structures that pose a "substantial risk" as those that do not meet operation maintenance criteria, or that have been shown to be less effective for controlling erosion, or that prevent attainment of aquatic and riparian objectives. The rationale statement for this standard also states that "the intent for accomplishing this standard is to incorporate stream crossing upgrade priorities identified from a roads analysis into project implementation, based on available funding".

Comment: *The standard that requires construction of new and reconstruction of existing road crossings of steams and rivers that currently or historically supported native fish species (Standard B-S26) should explain how attainment of this standard will be measured. In addition, the "unless" clause in this standard should be rewritten to improve clarity.*

Response: To improve the clarity of Standard B-S26, a rationale statement has been added and other modifications made. The intent of this direction is for the federal land management agencies to use information from Roads Analysis, Ecosystem Analysis at the Watershed Scale, or other site-specific analysis to identify road crossings that are affecting fish passage, fish spawning, and channel stability. Implementation monitoring will determine if planned activities are being implemented and if standards and objectives are being followed. The EIS Team plans to include the implementation portion of the monitoring plan in the Record of Decision.

Comment: *Some respondents state that the EIS does not address the impacts caused by off-highway vehicles (OHV) and snowmobile use nor does it include direction to address these effects. Other commentors want the EIS to address the adverse effects on recreation if fewer roads are open to OHVs, snowmobiles, and other recreation use.*

Response: At the broad scale addressed in the Final EIS, no changes in recreation use could be projected. Therefore, these changes are better addressed during mid- and fine-scale analyses (that is, Subbasin Review, Ecosystem Analysis at the Watershed Scale, land use plan amendment or revision, and/or site-specific NEPA analysis).

The Roadless Area Conservation Final EIS provides some general information about off-highway vehicle and snowmobile use that is applicable to the project area. For example:

- Demand for new opportunities for developed and road-based recreation is increasing and will continue to grow;
- This growing demand is and will be driven by population increases, population migration to areas close to federal lands, new and shifting recreation activities and technology, and other factors;
- As demand increases, more competition for recreation uses as well as conflicts between recreation users are likely. A road system with fewer miles would tend to exacerbate this effect.
- Although the outcome of the BLM's National Off-Highway Vehicle (OHV) Strategy is still unknown, there is a trend for land management agencies to more closely monitor an manage OHV use. Rather than reducing the demand, regulation of OHVs is likely to displace use from one area to another; and
- Snowmobiling is expected to be one of the fastest growing outdoor recreation activities over the next 40 years. Restrictions on snowmobiles being

considered by the National Park Service could place increased pressure on the Forest Service and BLM to allow or continue this use on lands under their administration.

Comment: *The EIS should include management measures to mitigate the impact of roads on bear populations and the habitats of other terrestrial species such as elk, lynx, and fisher.*

Response: The overarching intent for roads management within the project area is to progress toward a smaller transportation system that can be maintained into the future with minimal environmental impact. This intent supports road management guidance contained in other existing plans such as the Grizzly Bear Recovery Plan. Specific mitigation measures are not outlined in the Final EIS because the impacts to species and populations from roads vary greatly throughout the project area. Instead, roads analysis will be used to identify road-related wildlife concerns. Access and Travel Management Plans can then be developed at the local level to address the risks identified through roads analysis or other processes such as Subbasin Review and Ecosystem Analysis at the Watershed Scale.

Road Management

Comment: *The standard that requires improvement of existing structures to accommodate a 100-year flood if there is a substantial risk to riparian conditions is too restrictive and will be cost-prohibitive. A 50-year flood event should be used as the standard, and the need for improvement should be identified through Ecosystem Analysis at the Watershed Scale or roads analysis.*

Response: This standard has been modified to improve its clarity. The standard now directs the agencies to design new or improve existing structures to the 100-year event standard when roads are constructed or reconstructed during restoration-related activities. Priority for upgrading would be identified through roads analysis or Ecosystem Analysis at the Watershed Scale, and implementation would be based on available funding.

Comment: *The Supplemental Draft EIS incorrectly characterizes BLM roads when it states that "it is estimated that about 30 percent of low standard roads are closed to the public…for all or most of the year".*

Response: The reference on page 2-187 in the Supplemental Draft EIS is referring to a combination of both Forest Service- and BLM-administered roads, not just BLM-administered roads. It is a reasonable estimate that 30 percent of total Forest Service- and BLM-administered low standard roads are closed to the public... for all or part of the year.

Comment: *The standard that directs the agencies to avoid side casting of soils or snow from roads in Riparian Conservation Areas (Standard S1-S28) is impractical.*

Response: Standard S1-S28 is included in Alternative S1 and represents current direction. It is not included in Alternatives S2 and S3.

New Road Construction

Comment: *Please clarify whether the direction prohibiting new road construction within A2 subwatersheds in the short term also includes the construction of temporary roads.*

Response: Temporary roads are those roads that are authorized by contract, permit, lease, or emergency operations and are not intended to be a part of the transportation system. Temporary roads built pursuant to valid existing rights (such as permits, leases, or contracts) are not prohibited but would be mitigated to the extent possible. Construction of other temporary roads could occur if a new road is needed to support implementation of an activity designed to achieve A2 subwatershed and aquatic objectives.

Comment: *The objective stating that "new road building should rarely occur in watersheds that are currently unroaded or have very few roads" should identify what policy or program direction would enforce this ban, and how "unroaded" will be defined.*

Response: The Forest Service's National Roads Policy and Roadless Area initiative are expected to provide additional direction pertaining to roads and roadless areas. The Record of Decision for the ICBEMP will require management actions to be consistent with these policies. Implementation monitoring will determine if planned activities are being implemented and if standards and objectives are being followed. The EIS Team plans to include the implementation portion of the ICBEMP monitoring plan in the Record of Decision.

Unroaded areas are defined as any area without the presence of a classified road that is of sufficient size and configuration that the inherent values associated with an unroaded condition can be protected. Unroaded areas do not overlap with inventoried roadless areas.

Comment: *Some respondents feel that the objectives and standards addressing new road building in unroaded watersheds, A1/A2 subwatersheds, and Riparian Conservation Areas are too restrictive and will preclude other uses and activities, such as forest restoration treatments. Other commentors want the direction strengthened, particularly in watersheds containing bull trout.*

Response: Decisions on management of roads would be made at the local level (with involvement from interested and affected parties) through the access and travel management planning process. These decisions will be based on a scientific roads analysis. Roads analysis is designed to provide the information and context needed to effectively and efficiently reduce identified road-related adverse effects while considering the need for public access, tribal rights, and resource management.

Comment: *The preferred alternative should direct that Ecosystem Analysis at the Watershed Scale be conducted prior to allowing any increases in road density to occur.*

Response: The Forest Service's National Roads Policy is expected to establish criteria on completion of science-based roads analyses prior to new road construction. Because roads analysis is specifically designed to provide the information and context needed to effectively and efficiently reduce identified road-related adverse effects while considering other needs, it is considered the most appropriate analytical tool to support decisions regarding roads. The Record of Decision for the ICBEMP will require management actions to be consistent with the National Roads Policy.

Comment: *The preferred alternative should be modified to include direction that prohibits road construction and reconstruction in unstable areas except in certain prescribed circumstances.*

Response: Decisions whether roads should be constructed or reconstructed in unstable areas are best made at the local level using knowledge of site-specific resource conditions. Roads analysis and the access and travel management planning process are intended to address these fine scale issues.

Comment: *Retain the road construction prohibitions for A1 and A2 subwatersheds. Clarify the road construction exception for A2 subwatersheds so that the exception does not negate the rule. Use a "no retard" standard instead of the "achieves or maintains" or "does not prevent" standards currently used.*

Response: New road construction prohibitions in A1 and A2 subwatersheds are retained in the proposed decision. The A2 exception means that, if road construction activity will result in net positive environmental effect, it may be authorized after suitable analysis. It is the intent that such new construction would be rare. A "no retard" standard (one that prohibits an activity that could retard achievement of resource goals) has not been used because such a standard could prohibit an activity that is needed to reach long-term resource goals. For example, restoration/fuel reduction work would reduce the likelihood of catastrophic wildfire, but would be prohibited under a no-retard standard if, in the short-term, the action increased siltation.

Road Closures, Obliteration

Comment: *The preferred alternative should include a provision that the land base available for active management will not be reduced because of road closures and obliteration. Otherwise, the levels of timber harvest anticipated in the EIS may not be feasible.*

Response: Through the land use planning process, each administrative unit determines the location and amount of various land allocations, including lands available for active management. Because of the broad scale nature of ths project, it is not possible to predict the outcome of the management direction on land use allocations for individual national forests and BLM districts.

Road-related Adverse Effects

Comment: *Road density should not be used as the only surrogate for assessing the impacts to watersheds and streams. Other factors, such as road location, design, and maintenance and hydrologic connectivity can have equal or greater significance.*

Response: The Description and Management Intent section of the Road Restoration direction acknowledges that road risk and road effects are not determined solely by road density but vary substantially depending on factors such as geology, landform, climate, slope position, road condition, and road design. A science-based analytical tool (roads analysis) will be used by the Forest Service (nationally) and the BLM (in the project area) to identify this variability and to appropriately evaluate road networks.

Comment: *The EIS should include more discussion of sedimentation from roads and the effects of roads on the introduction and dispersal of weeds, and it should provide more direction for reducing these effects.*

Response: The *Scientific Assessment* provides extensive information about the effects of sedimentation from roads and the spread of noxious weeds via the road network. In addition, the Forest Service recently published a comprehensive synthesis of information pertaining to road-related effects (Gucinski and Lugo 2000). The information included in the Final EIS is not intended to duplicate existing science; instead, it summarizes and interprets this more extensive information in the context of the decisions being made for the project area. The intent of Standard B-S25 is to prevent and reverse several adverse effects of roads, including sedimentation. The intent of Guideline B-G18 is to place priority on the prevention of weed spread by targeting roadways in weed management programs. This broad-scale direction in the preferred alternative is intended to be supplemented by more site-specific analyses and decisions that can better address existing cause-and-effect relationships among roads, noxious weeds, and sedimentation to streams.

Roads Analysis and Inventory

Comment: *Several commentors want the EIS to provide more specific information about the process for conducting roads analysis and its relationship to Access and Travel Management Plans and other plans and assessments that address roads. Others feel that the requirement to conduct roads analysis is unnecessary and duplicative.*

Response: Roads analysis is intended to complement and integrate previous and ongoing analytical efforts, including Access and Travel Management Plans, Ecosystem Analysis at the Watershed Scale (EAWS), and NEPA analyses. In fact, roads analysis will often be a component of EAWS and other analyses. However, roads analysis is not a decision process. Rather, it identifies and addresses a set of possible issues and applicable analysis questions that, when answered, produce information for decision makers to consider regarding road construction, reconstruction, and decommissioning opportunities. The opportunities identified through the analysis can then be used to inform other planning and decision-making processes.

A copy of the roads analysis process can be obtained from the following web site: http://www.fs.fed.us/news/roads/DOCSroad-analysis.shtml.

Comment: *We are concerned about the use of derived data to analyze the ecological effects of roads.*

Response: Forest Service administrative units are currently in the process of updating their inventories of existing roads. The proposed Forest Service Roads Policy addresses requirements for road inventories, and the current effort to update road inventories is expected to be completed within five years. The Final EIS uses predicted road density data instead of actual data because a continuous roads layer is not available across the project area. The predicted road density classes were derived using a statistical rule set based on several data sources, one of which was a mid-scale sub-sample of roads. These data were developed for use at the broad scale and are not intended to substitute for actual roads data at the finer scale.

Road Densities

Comment: *A definition of road density should be included in the EIS, and roads that are closed, but not removed, should still be included in the calculation of road density.*

Response: Road density is an indicator of the concentration of roads in an area. The roads analysis process provides detailed information about ways to determine and analyze this indicator. Road density has been added to the Final EIS Glossary.

Comment: *The road density classification used in the effects analysis is biased. While the "high" effect classification encompasses a wide range, the "low" range is narrow. This classification system makes it "easy" to move toward a higher impact category and difficult to move to a lower one, which skews the results.*

Response: The ranges of the various road density classifications (low, moderate, high, etc.) Is based on

anticipated effects. The Science Advisory Group determined based on review of the science literature that adverse effects on species from roads occur at relatively low road densities, and at higher densities effects are similar. For example, within the high road density classification substantial changes in effects on species would not be expected even though there is a wide-range of road densities within this class.

Access

Comment: *Adjacent land owners (state and private) would be harmed if we cannot use our property because of restrictions on access roads that cross federal lands. Access to private inholdings must be accommodated, and stipulations on rights-of-way should be reasonable.*

Response: Decisions on management of roads are best made at the local level (with involvement from interested and affected parties) through access and travel management planning and other processes. These decisions will be based on a scientific roads analysis and other information, such as the results of Ecosystem Analysis at the Watershed Scale. Roads analysis is designed to provide the information and context needed to address road-related adverse effects while considering the need for public access, tribal rights, and resource management.

Comment: *Chapter 2 of the Supplemental Draft EIS states that "in general, wildfires are becoming larger and effects are becoming more uncharacteristically severe because of timber harvest, fire suppression, and roading". Please explain how roads cause these effects.*

Response: Human access is likely to be increased by roads, which in turn greatly increases the chances of both accidental and intentional human ignitions. A potential factor in the increase in fire size and severity is an increased incidence of human-caused ignitions. The *Scientific Assessment* and various scientific studies provide further information about this relationship.

Comment: *The EIS should analyze the economic and social effects of restrictions on access resulting from existing and potential mineral claims and operations.*

Response: An analysis of the effects of existing and potential mineral claims and operations on access is not within the scope of this EIS.1400 Land Status, Ownership, Uses

Tribal Rights and Interests

Federal Treaty Rights and Responsibilities

Comment: *We are unable to find any act of Congress specifically negating the 1865 Treaty with the Tribes of Middle Oregon. We suggest that prior to the Record of Decision, the question as to what specific interests remained after the 1865 treaty be resolved.*

Response: In accordance with principles of law confirmed in United States v. Oregon, 302 F.Supp.899 (D.Or. 1969), the Warm Springs Tribe exercises off reservation fishing rights secured by Article III of the 1855 Treaty Between the United States and the tribes of Middle Oregon, 12 Stat.963. Article III of the treaty also secures to the Tribe "the privilege of hunting, gathering roots and berries, and pasturing of stock on unclaimed land..." The federal courts' confirmation of the Warm Springs Tribe's off-reservation treaty rights is consistent with the federal government's practical construction of the 1865 Agreement, which has not been interpreted as a relinquishment of Warm Springs treaty rights.

Comment: *There is concern that access to certain public lands could be limited if a Tribe declares the area a traditional use area.*

Response: Agencies determine how public lands are to be managed. Tribal input is important, but expressed tribal interests do not automatically negate other public land uses.

Comment: *The Supplemental Draft EIS presents three alternatives none of which are adequate to comply with the federal government's duty to protect and rebuild salmon, consistent with its treaty and trust responsibilities. This is unacceptable and illegal. ICBEMP needs to revise the Supplemental Draft EIS consistent with the recommendations contained in Wy-Kan-Ush-Mi Wa-Kish-Wit.*

The document is unclear and contradictory in relation to its commitment to provide harvestable levels of resources. Federal land managers assert that they have a harvestability goal that they would like to achieve sometime in the next 50-100 years. This is completely unacceptable and a violation of the tribes' treaty secured rights. Neither decision-makers nor the public know what land management actions could be taken to maximize the likelihood of achieving populations capable of supporting

reasonable harvest. The clear message is that the tribes' right to take fish is becoming an illusory right that the federal government is declining to protect. The ground rules need to reflect the requirement to manage habitat to provide harvestable populations.

Response: One focus of the project is to establish objectives and standards to enhance fish and wildlife habitats. Management of fish and wildlife populations is outside BLM/Forest Service administrative responsibility. Responsibility for actual species populations rests with other state and federal agencies.

Comment: *The Supplemental Draft EIS must analyze and require a land management program that maximizes the likelihood of complying with the legal rights of Indian tribes.*

Response: The proposed decision addresses tribal legal rights to public land participation through adoption of objectives and standards guiding and leading to a collaborative approach to land management.

Comment: *Include the protection of Tribal Treaty rights in the discussion of trade-offs (see Chapter 1, page 26, discussion of Issue 3).*

Response: Treaty Rights are honored by the agencies, and integrated into all land management.

Comment: *Although it is correct to state that the trust responsibility is not fully defined, there is a rather extensive body of federal case law on this subject which should assist the Forest Service and BLM in determining the extent of their trust responsibility. This case law makes it clear that such a duty exists and that it is comprised of both a procedural and substantive component. This substantive component requires actual protection of rights and interests. Therefore, the statement that, "consultation and consideration alone may not be enough to redeem federal responsibilities" does not accurately capture the essence and extent of the trust responsibility. We note that where a tribal interest exists, there is a corresponding trust responsibility to protect this interest. Only abrogation by Congress can work to "supersede" the rights and interests reserved in these treaties, not competing interests deemed such by federal agencies.*

Response: "Tribal interest" does not necessarily equate to "trust responsibility." Agency trust responsibilities regarding public land management are limited and tribes do not have an automatic priority standing over other public land uses. Public land managing agencies must accommodate public interests as well. The agencies must not only honor treaties, but other public land laws as well.

Collaboration, Consultation, Coordination, and Cooperation with Tribes

Comment: *The Supplemental Draft EIS contains a detailed section on federal trust responsibility to tribes which describes the treaties but contains little or no information that complies with the substantive requirements to consider the objectives and plans and policies of local governments as required by 36 C.F.R. 219.17.*

Response: The federal government has a longstanding legal relationship with tribes established through treaties, laws, and court decisions in which the government is to protect the interests of tribes through a government-to-government decision-making process.

Comment: *There should be additional language within the Supplemental Draft EIS that stresses the importance and opportunities of tribal participation at both the policy and technical levels within planning and project implementation.*

Response: The Supplemental Draft EIS fully embraces and requires the collaborative approach to land use management including tribal participation at all levels of decision-making.

Comment: *ICBEMP should work with tribes to streamline analysis processes and avoid reinventing the wheel on every national forest, ranger district, and watershed.*

Response: The agencies recognize the unique interests of each tribe in the project area and the importance of identifying those interests at the local level. Every effort is made to streamline the process of collaboration and government-to-government consultation.

Other Comments

Congressional Report

Comment: *The agencies did not disclose the time and cost to the other participating federal agencies involved in the decisions of this plan as required in Section 323 (a) (2) of the 1998 Interior and Related Agencies Appropriations Act.*

Response: The BLM and Forest Service identified that programmatically the analysis costs would increase overall agency costs of restoration and planning, and could diminish the overall amount of funding available for projects. The U. S. Fish and Wildlife Service has identified that the implementation cost for their agency to expand their coordination, collaboration, and consultation on the plan direction would be an additional $7.3 million per year. The National Marine Fisheries Service has identified an increased cost of $3.4 million per year, and the Environmental Protection Agency has identified a need of an additional $400,000 per year.

Comment: *Can the additional analysis of Subbasin Review and Ecosystem Analysis at the Watershed Scale (EAWS) can be accomplished in a timely fashion?*

Response: Through conducting several prototypes, the land management agencies now have experience with Subbasin Review and EAWS and believe that these processes can add value to risk management strategies and can be accomplished in a timely manner.

Comment: *If the Ecosystem Analysis at the Watershed Scale (EAWS) and Subasin Review cost $9.5 million to $18.0 million per year, this represents 2-3 percent of the land management agencies' operating budgets.*

Response: The assumption is that the analysis process would cost $9.5 million per year for the proposed decision. This would represent roughly less than .02 (two hundreths) of 1 percent of the land management agencies' total operating budget in the basin, and .6 (six tenths of 1 percent) of the land management agencies' estimated operating budgets used for restoration activities in the project area.

Comment: *The Report to Congress describes the goods and services that would result from each alternative compared to a baseline that is different from the baselines called for in BLM and Forest Service land use plans.*

Response: The Report to Congress acknowledges that there have been changes since timber volumes and actions were proposed in existing land use plans. These include lawsuits, PACFISH, INFISH, the Eastside screens, and the terms and conditions of the Biological Opinions on these strategies that have amended existing land use plans. It was not appropriate to assume that current conditions are the same as those identified in the original land use plans.

Comment: *There is a concern that the land management agencies made no attempt to identify how priorities would be established in accordance with appropriations in subsequent fiscal years. What is the prioritization process that would guide these budgets?*

Response: The land management agencies will continue to develop and formulate their future budgets in the same manner as they currently do under FLPMA and NFMA. The information from land use plans will feed into budget formulation to develop the needs of future budgets. The overall priorities and direction of the amended 62 land use plans will guide this budget formulation. The agencies will continue to formulate, present, and justify to Congress, the need for restoration of the federal lands in budget proposals that are submitted to their national offices on an annual basis.

Land managers would use the hierarchy of direction described in the base- level direction of the Final EIS to establish priorities. In addition, they would use the high restoration priority subbasins to guide formulation and allocation of budgets that may be appropriated by Congress in the future.

Comment: *The Report to Congress should have considered mineral, water resources, energy, recreation, and demographic changes.*

Response: The *Report to the Congress* (ICBEMP 2000) specifically responded to four items outlined by Congress in the FY 2000 Interior and Related Agencies Appropriations Act. The report states that because of the site-specific nature of resources such as minerals and energy the effects could not be modeled at the broad scale and were not estimated.

Appendices

Appendix 9 - Additional Aquatics Guidance

Comment: *The Supplemental Draft EIS should explain what agencies must do to comply with the standard that requires use of the U.S. Fish and Wildlife Service and National Marine Fisheries Service matrices (Standard B-S44) if they lack data about one of the indicators in the matrices. Why should the agencies be required to use the National Marine Fisheries Service and Fish and Wildlife Service matrices instead of allowing them to develop suitable factors, functions, and processes at the appropriate scales?*

Response: Until Watershed Condition Indicators (WCIs) have been developed and implemented, a modified matrix has been developed to assist field units in determining the consistency of their activities with aquatic, riparian, and hydrologic standards and objectives in the Record of Decision. (See the Final EIS, Appendix 9, for more information about the matrix.) The modified matrix is a multi-scaled diagnostic tool to evaluate site-level projects in the context of conditions at the subwatershed or watershed scale. However, this diagnostic tool cannot be used alone to make Endangered Species Act effect determinations.

The modified matrix is a compilation of the existing U.S. Fish and Wildlife Service (USFWS) Matrix of Diagnostics/Pathways and Indicators, and the National Marine Fisheries Service (NMFS) Matrix of Pathways and Indicators. The modified matrix was developed by a task team composed of regulatory and land management technical specialists working under the Interagency Implementation Team (IIT) established to streamline implementation of PACFISH, INFISH, and the Northwest Forest Plan.

Comment: *The land management agencies, and not the U.S. Fish and Wildlife Service and National Marine Fisheries Service, should make decisions about balancing the short-term and long-term needs of listed and proposed species (Objective B-O53).*

Response: In order to comply with the Endangered Species Act, the Forest Service and the BLM must consult with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service in cases where actions may affect a listed species.

Appendix 12 - Requirements for Snags and Downed Wood

Comment: *The standard that requires the agencies to use the downed wood and snag standards in Appendix 12 [B-S29(S2)] should be changed into a guideline for the following reasons: there is not enough narrative or data to justify the standard; the tables in Appendix 12 are unclear; this standard conflicts with standards for old-growth structure requirements; and this standard does not address spatial and temporal variability.*

Response: The information in Appendix 12 is to be used only until it is modified using local information. See Standards B-S28, B-S29, and B-S30.

Appendix 15 - Restoration Strategy

Comment: *The prioritization system outlined in Appendix 15 gives too much weight to aquatic/water quality components when identifying restoration priorities. This system cannot be considered an integrated approach. The Supplemental Draft EIS should either acknowledge a bias toward aquatic issues, or modify the process to give more consideration to non-aquatic needs.*

Response: An integrated approach was used to identify the high restoration priority subbasins. The weighting used for aquatic and water quality issues was determined by the number and distribution of listed aquatic species.

Appendix 16 - SAG Assumptions for Modeling the SDEIS Alternatives

Comment: *The Science Advisory Group assumes that at the completion of each field season information on the distribution and status of rare plants is incorporated and considered in new decisions. This assumption is not correct, as several years may go by before lists of rare plants are updated by the agencies.*

Response: On individual administrative units, new activities or projects and related decisions incorporate information gathered at the completion of each field season as part of the National Environmental Policy Act process. Several years can go by before agency lists of threatened, endangered, or sensitive species are updated. Consequently, the ICBEMP plant species of conservation concern correspond to those with state Natural Heritage Program rankings of G1-G3. These state Natural Heritage Program lists are updated annually. The list of species considered in Standard B-S51 and Objective B-O47 is dynamic and responsive to new information.

Outside the Scope

Removal/Breaching of Dams

Comment: *The Supplemental Draft EIS should address dam removal/breaching and the effects of dams on fish populations.*

Response: Chapter 1 of the Supplemental Draft EIS provides an overview of the multiple factors that have led to the decline in salmon populations in the interior Columbia River Basin. The factors discussed include hydropower, hatcheries, harvest and changes

in habitat. Within this discussion, it is noted that, "Hydroelectric development is generally regarded as a major factor in the decline of anadromous fish populations." While the document outlines the factors that influence salmon survival, the Supplemental Draft EIS applies only to BLM- and Forest Service-administered lands; therefore, ICBEMP management direction can only propose changes to the management of anadromous fish habitat on lands these agencies administer. Dam removal or breaching is outside the scope of this EIS; however, through Riparian Conservation Area direction, threatened and endangered species direction, and the designation of A1 and A2 subwatersheds, the management direction in the Supplemental Draft EIS is expected to improve federal habitat conditions throughout the basin.

Comment: *The direction should address financial surety and bonding for minerals work on federal lands.*

Response: This is a national policy that is beyond the scope of the ICBEMP Final EIS.

Funding for/Cost of ICBEMP Process

Comment: *A General Accounting Office Report estimates that it will cost $725 million per year to implement ICBEMP, while the Supplemental Draft EIS estimates it will cost $137 million per year. Which figure is correct?*

Response: The General Accounting Office Report figure refers to a fire program analysis which estimated the amount of funding necessary to decrease fuel loads in the region. This figure can not be directly compared to the implementation of the Supplemental Draft EIS for ICBEMP.

The Supplemental Draft EIS was crafted to respond to varying funding levels. These are displayed and analyzed in Chapter 4 of the Final EIS.

Comment: *How much money was spent on the project and where did it come from?*

Response: The BLM and Forest Service have spent approximately $52 million since 1994 on the *Scientific Assessments* and the development of the management direction in the Draft EISs, Supplemental Draft EIS, Final EIS, and the Report to Congress.

Table 1. ICBEMP Meetings, Briefings, and Consultations, March–November, 2000

Date	Location	Contact/Meeting/Briefing
February 2	Portland, Oregon	US Army Corps of Engineers / Federal Caucus public hearing
February 8	Spokane, Washington	US Army Corps of Engineers / Federal Caucus public hearing
February 10	Lewiston, Idaho	US Army Corps of Engineers / Federal Caucus public hearing
February 14	Boise, Idaho	Society for Range Management
February 17	Richland, Washington	US Army Corps of Engineers / Federal Caucus public hearing
February 23	Boise, Idaho	US Army Corps of Engineers / Federal Caucus public hearing
February 29	Seattle, Washington	US Army Corps of Engineers / Federal Caucus public hearing
March 1	Kalispell, Montana	US Army Corps of Engineers / Federal Caucus public hearing
March 2	Missoula, Montana	US Army Corps of Engineers / Federal Caucus public hearing
March 7	Idaho Falls, Idaho	US Army Corps of Engineers / Federal Caucus public hearing
March 8	Twin Falls, Idaho	US Army Corps of Engineers / Federal Caucus public hearing
March 13	Portland, Oregon	Congressional staff, local government
March 15	Boise, Idaho	Congressional staff, local government, Lower Snake RAC
March 16	Spokane, Washington	Congressional staff, local government
March 22	Boise, Id / Helena, Mt	Montana Governor's Office conference call
March 23	Missoula, Montana	Upper Columbia Clearwater-Salmon Resource Advisory Council
March 23	Missoula, Montana	Congressional staff, local government, Butte Resource Advisory Council
April 5	Salem, Oregon	Oregon Governor's Office
April 13	Ontario, Oregon	Southeast Oregon Resource Advisory Council
April 14	Lewiston, Idaho	Forest Products Industry
April 18	Salmon, Idaho	Public Meeting
April 18	Salmon, Idaho	Lemhi County Commissioners
April 18	Walla Walla, Wash.	Public Meeting
April 19	Missoula, Montana	Public Meeting
April 20	Kalispell, Montana	Public Meeting
April 24	John Day, Oregon	Public Meeting
April 24	Libby, Montana	Public Meeting
April 25	Lakeview, Oregon	Public Meeting
April 25	Coeur d'Alene, Idaho	Public Meeting
April 26	Boise, Idaho	Public Meeting
May 1	Spokane, Washington	Eastside Ecosystem Coalition of Counties
May 1	Spokane, Washington	Spokane Area Chamber of Commerce
May 1	Okanogan, Washington	Public Meeting
May 2	Colville, Washington	Public Meeting
May 3	Bend, Oregon	Public Meeting
May 4	Pocatello, Idaho	Public Meeting
May 5	Idaho Falls, Idaho	Briefing, Upper Snake River Resource Advisory Council
May 15	Colville, Washington	Public Hearing
May 16	Seattle, Washington	The Wilderness Society, The Mountaineers, Earth Justice
May 17	Olympia, Washington	Washington Governor's Office
May 18	Boise, Idaho	National Association of Counties meeting
May 30	Portland, Oregon	Conservation groups
May 31	Eureka, Montana	Tobacco Valley Study Group
June 13	Boise, Idaho	Eastside Ecosystem Coalition of Counties
June 22	Boise, Idaho	Lower Snake River Resource Advisory Council
June 29	Washington, D.C.	U.S. Senate Energy and Natural Resources Committee Hearing